

10-6-2010

Dimensions in Health : A Sample of Rural and Global Health Issues

Sandra L. McClelland

Susan Steel

Laura Marsh

Trinette Radasa

Lourdes Ticas

See next page for additional authors

Follow this and additional works at: <https://digitalrepository.unm.edu/rural-cultural-health>

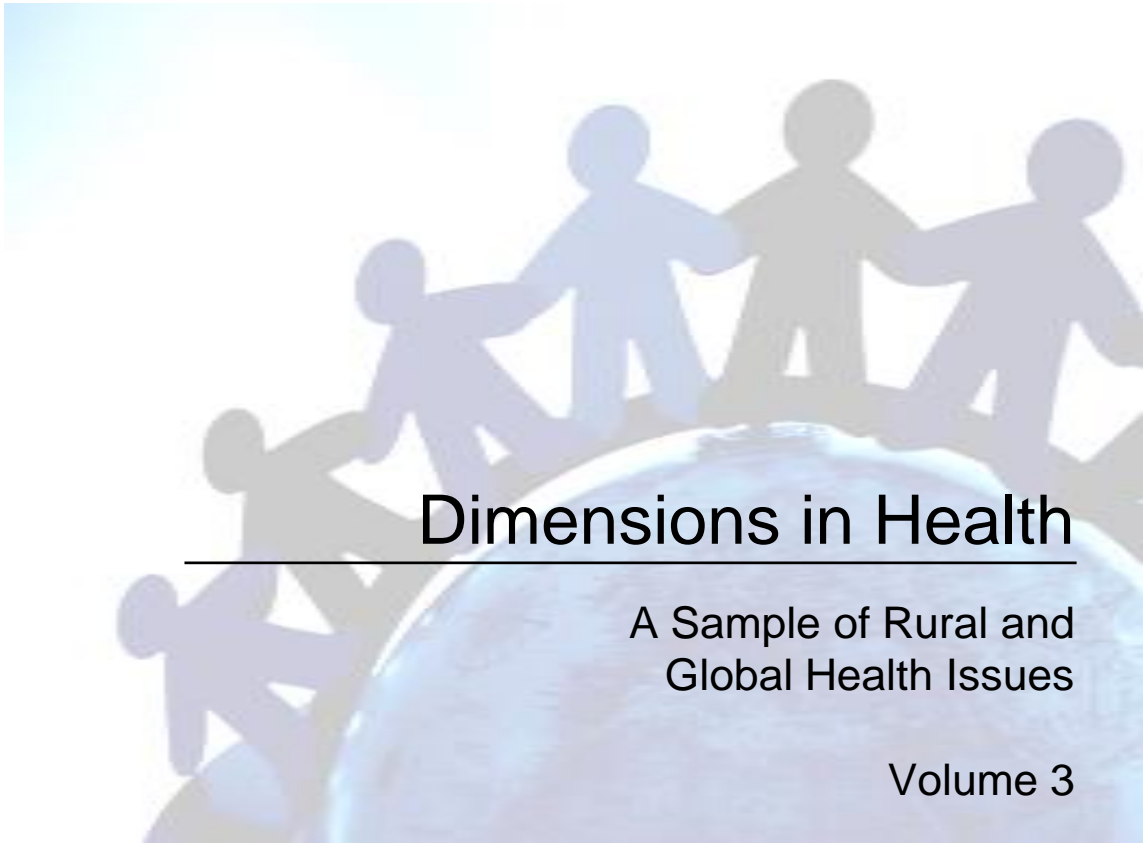
Recommended Citation

McClelland, Sandra L.; Susan Steel; Laura Marsh; Trinette Radasa; Lourdes Ticas; Angela DelGrande; Gloria Browning; Jane L. Smith; Kristin Kuhlmann; Unchalee Vatanasook Ice; Karen Lottis; and Dale Payment. "Dimensions in Health : A Sample of Rural and Global Health Issues." (2010). <https://digitalrepository.unm.edu/rural-cultural-health/2>

This Book is brought to you for free and open access by the Health Sciences Center Student Scholarship at UNM Digital Repository. It has been accepted for inclusion in Global, Rural, & Cultural Health Book Series by an authorized administrator of UNM Digital Repository. For more information, please contact disc@unm.edu.

Authors

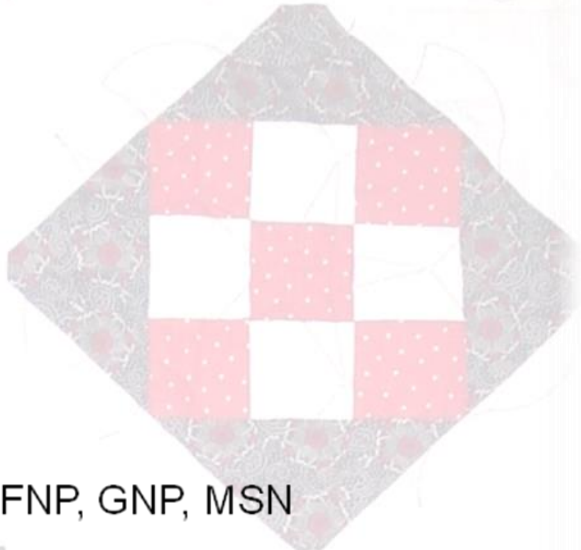
Sandra L. McClelland, Susan Steel, Laura Marsh, Trinette Radasa, Lourdes Ticas, Angela DelGrande, Gloria Browning, Jane L. Smith, Kristin Kuhlmann, Unchalee Vatanasook Ice, Karen Lottis, and Dale Payment



Dimensions in Health

A Sample of Rural and
Global Health Issues

Volume 3



Sandra L. McClelland, RN-BC, FNP, GNP, MSN

Susan Steel, RN, MSN

Laura Marsh, RN, MSN, MBA

Trinette Radasa, RN, CNS-BC, MSN

Lourdes Ticas, APRN, BC, MSN, MPA

Angela DelGrande, CNS, WHCNP, MSN

Gloria Browning, RN, MSN

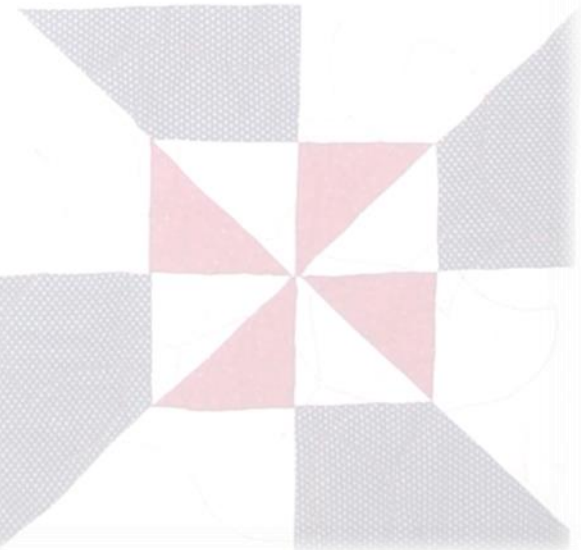
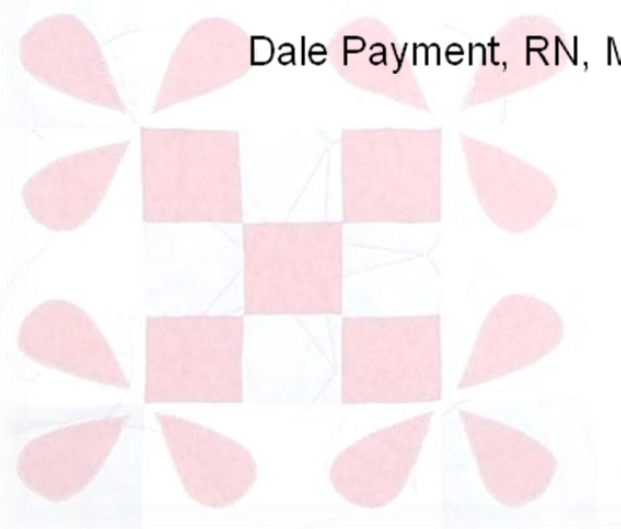
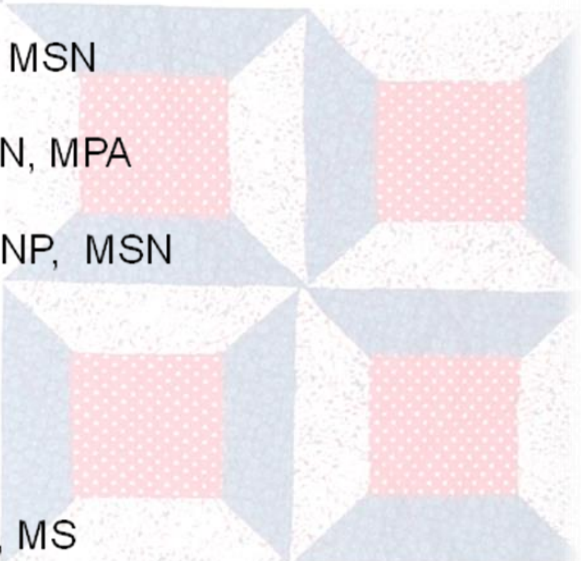
Jane L. Smith, RN, MSN

Kristin Kuhlmann, RN-BC, FNP, MS

Unchalee Vatanasook Ice, RN, MSN

Karen Lottis, RN, APRN-BC, MSN

Dale Payment, RN, MSN, JD



Foreword

When our early College of Nursing PhD students wrote Volumes 1 and 2 of this compilation, the program was new, and most of the students lived right here in New Mexico. However, we now have five groups of these aspiring scholars in the pipeline, with the sixth group poised to begin their doctoral study in 2008. As with all the previous doctoral students, the current group represents a unique and varied array of backgrounds, experiences, cultural identities, and research interests. Something else is new this time around—our focus in this class on *Rural and Cultural Health* is now *global* in scope. The individuals whose work appears in Volume 3 live all over the state of New Mexico, as well as elsewhere in the United States and even outside of the United States. Additionally, this group is perhaps more accustomed to world travel than any previous group. It is our belief that although the state of New Mexico holds its unique cultures, characteristics, and problems, the health disparities, population trends, migration patterns, and general state of rural health the world over are more similar than different at the close of 2007.

We invite you to explore an array of issues touching *culture*, *rurality*, or both, in the following collection of essays. In this class, we have defined both culture and rurality broadly and in expansive contexts. Much remains to be done, both locally and globally, to improve the health status of our varied populations and residents. Please join us in the analysis and resolution of the health challenges, inequities, and noteworthy mysteries that characterize particular rural and cultural settings. In the words of John Nichols:

Always my life comes up against the fact that it does not flourish or wane separate from worldwide experience, but is, in fact, wired, like a neuron in the brain, to all other circuits of life on earth....Conscience, in other words, is collective. Speaking of conscience, now that the spirit is willing, it's time for a discussion about the logistics of salvation. The foundation of all my action, of course, is the understanding that any menace to any portion of the biosphere constitutes a personal threat against my own life. Accepting that truth, no individual should have any qualms about the necessity for social commitment.

Jennifer B. Averill, RN, MSN, PhD

Introduction

This third volume of *Dimensions in Health* is presented by Dr. Jennifer Averill's doctoral students. Compelled to meet the standards set by our predecessors, with the support and encouragement of Dr. Averill, we believe that we have met those standards with the creation of Volume 3.

We are a diverse and highly motivated group of nurses who bring our interests and expertise to the table, further expanding and developing this series of volumes. Our group is highly supportive and respectful of each other's individuality. With that in mind, our volume is composed to reflect those challenges that we, as nurses, view as important issues in the environments in which we practice.

The diversity of our group may be found in its membership list. Kristin Kuhlmann is Director of Student Health Services at Eastern New Mexico University. Her interests are in primary health care services and family health. Jane Smith teaches at New Mexico State University. She plans to explore the learning methods of Hispanic students to improve their comprehension of nursing studies. Karen Lottis is a family nurse practitioner whose focus is developing and strengthening high-quality primary health care services in culturally diverse rural communities. Trinette Radasa teaches at New Mexico State University. She plans to explore the roles of promotoras in the community to improve rural community health. Dale Payment is a nurse educator. Gloria Ann Browning, whose focus is health promotion and the older adult population, teaches acute and chronic nursing at University of Tennessee. Her interests lie in health promotion in the older adult population. Angela DelGrande, a perinatal Clinical Nurse Specialist, is focusing on role transition, postnatal quality of life, and the risk of development of postpartum depression. Laura Marsh works with telemedicine and is involved in the ECHO (Extension for Community Health Care Outcomes) project as program administrator. Sandra McClelland works in research at the University of New Mexico and at Lovelace Respiratory Research Institute. She plans to further identify adherence to prescribed treatments utilizing motivational interviewing techniques. Susan Steel works in the New Mexico Veterans Health Care System. She is interested in access to health care for women veterans. Unchalee Vatanasook Ice is from Thailand. She is seeking ways to improve cervical cancer screening rates in Thai women by developing educational programs for them. Lourdes Ticas works as a family nurse practitioner for Evercare, where her role is to manage, treat, diagnose, and coordinate care for long-term-care residents. Her primary areas of interest are chronic illness and geriatrics.

Susan Steel and Sandra McClelland

Dedication

We dedicate this volume to our families, colleagues, and the College of Nursing. Their support has inspired us in our endeavors. Our professors have supported us, listened to us, and given us the occasional extra “nudge” when we needed it.

Acknowledgments

We want to thank Anne Mattarella for the additional time and hard work that she devoted to this volume. Last but not least, we thank Jennifer Averill, RN, PhD, who guided us ever so gently to make this volume a reality. It is rare to find that professor who is a true teacher in every sense of the word. She is such a teacher.

Table of Contents

Foreword.....	ii
Introduction.....	iii
1 Rural Teens in New Mexico: Risk Behaviors and Health Vulnerability.....	1
<i>Kristin L. Kuhlmann, RN-BC, FNP, MS</i>	
Living in Rural New Mexico.....	2
Health Risk Indicators	3
Health Insurance and Access to Health Care Services.....	5
Adolescent Health Risk Factors.....	6
Vulnerability and Resiliency.....	12
2 Culture of Nursing.....	17
<i>Jane L. Smith, RN, MSN</i>	
3 Building Relationships of Trust in Rural and Diverse Communities.....	32
<i>Karen Lottis, RN, APRN-BC, MSN</i>	
Defining the Concepts.....	34
Relationships—Developing Trust Through Intentional Presence.....	35
Relationships—Elements of Interaction.....	37
4 Issues With Hispanic Rurality and Promotoras.....	46
<i>Trinette Radasa, RN, CNS-BC, MSN</i>	
Problem.....	46
Barriers to Health Care.....	46
Promotoras and Nurses.....	50
Overall Purpose Statement.....	51
Substantive Analysis.....	51
Summary.....	55
5 The Rural Homeless: An Empirically Neglected Community.....	58
<i>Dale Payment, RN, MSN, JD</i>	
Perspective.....	58
Background of Rural Homelessness.....	59
Fostering Research on the Rural Homeless.....	63
Final Comments.....	66
6 Rural Invisible Older Adults.....	68
<i>Gloria Ann Browning, RN, MSN</i>	
Background and Significance.....	68
Substantive Analysis.....	69
Interventions.....	72
Summary.....	72

7	Rural Telemental Health Care: An Overview.....	76
	Angela L. DelGrande, CNS, WHCNP, MSN	
	Background and Significance.....	77
	Telemental Health Care.....	83
	Concluding Thoughts.....	87
8	Access to Health Care, Hepatitis C Virus, and Telehealth Technology: Assisting Rural Communities.....	92
	Laura Marsh, RN, MSN, MBA	
	Background and Significance: The Problem of Health Care Access.....	92
	Telehealth Technology: What Is It and How Is It Being Used?.....	94
	Conclusion.....	100
9	End-Stage Renal Disease in Rural New Mexico.....	103
	Sandra L McClelland, RN-BC, FNP, GNP, MSN	
	Background and Significance.....	103
	Challenges in Providing ESRD Treatment in Rural New Mexico.....	109
	Nursing Implications.....	110
	Summary.....	110
10	Women Veterans.....	113
	Susan Steel, RN, MSN	
	Background.....	113
	Military Culture.....	114
	Rural State.....	117
	Barriers.....	118
	Slow Progress.....	118
	Implications for Nursing.....	120
11	Health Disparities and Health Care Access Issues in Cambodia.....	122
	Unchalee Vatanasook Ice, RN, MSN	
	Historical Overview.....	122
	Cambodia's Politics.....	124
	Cambodia and Her People.....	124
	Geography and Climate.....	125
	Economy.....	126
	Educational System.....	126
	Cambodia's Cultural Health.....	127
	Rural Cambodia.....	128
	Major Health Problems in Cambodia.....	129
	Implications for Research.....	134
12	Home: A Rural Elder's Last Wish.....	139
	Lourdes Ticas, APRN, BC, MSN, MPA	
	Background and Significance.....	139
	Analysis—Health Care Solutions for Rural Elders.....	141
	Summary and Implications.....	145
	Conclusion.....	146

1 Rural Teens in New Mexico: Risk Behaviors and Health Vulnerability

Kristin L. Kuhlmann, RN-BC, FNP, MS

We must protect the most vulnerable Americans—the 13 million children living below the poverty line One in five children in the United States now lives in poverty—the highest child poverty rate in the industrial world. That’s a sad reflection on our national priorities and a profoundly moral issue. As the Gospel teaches us: “Inasmuch as you have done it unto the least of these, you have done it unto me.” We are not doing nearly enough for the most vulnerable children in our country.

Edward M. Kennedy, Massachusetts Senator,
Congress of the United States, April 25, 2007,
at the Center for American Progress

Adolescents face a crucial crossroads in their lives, bridging childhood and adulthood over a time span of just 8 years. Change is an essential part of adolescence, and the choices made during this developmental stage will play a major role in determining health status into adulthood. Rural teens throughout the United States experience higher health risks than their urban peers because of socioeconomic factors and reduced access to health care resources. New Mexico youth, collectively, are faced with a multitude of socioeconomic and risk behavior challenges, and New Mexico has been ranked third for overall child health vulnerability within the United States (Every Child Matters Education Fund, 2007).

Vulnerability, as defined by Purdy (2004), is “a highly dynamic process of openness to circumstances that positively or negatively influence individual outcomes” (p. 32). The culture, structure, and function of a social system have an influence on the health status of each individual. For example, socioeconomic stresses, such as unemployment and poverty, may make the individual more vulnerable to health risks. When performing a community health assessment, a population cannot be viewed as merely a collection of individuals; rather it must be viewed as a social system in which exposures to both risk and preventive measures are carefully considered (Diderichsen, Evans, & Whitehead, 2001).

Resilience is the outcome of successful methods that are used to protect individuals and groups against risks that may impact health status. The four main processes of resilience include: 1) reduction of risk impact; 2) reduction of negative societal, intergenerational, and peer influences; 3) establishment and maintenance of self-esteem and self-efficacy;

and 4) access to positive opportunities and external support systems (Rutter, 1987). Specific risk and socioeconomic factors that influence health vulnerability and interventions that can improve the health resiliency of rural teens in New Mexico will be explored in this chapter.

Living in Rural New Mexico

The term *rural* is generally defined by two major characteristics: low population density and distance from a metropolitan or urban area. Rural communities, which make up 20% of the United States population, vary greatly based on many factors. These include: geographical area, social and economic factors, racial and ethnic diversity or homogeneity, employment opportunities, and adequacy or access to resources that support the welfare of the community (Institute of Medicine, 2005).

Although the perception of rural America has many utopian qualities, the reality of living in an isolated, resource-poor community may prove to be less than enviable. Rural communities that are geographically close to large metropolitan areas or that have popular tourist and recreational activities have fared much better than their smaller, remote counterparts over the past several decades (W. K. Kellogg Foundation, 2002).

New Mexico is a largely rural state, with 32 of the 33 counties having designated rural or frontier areas. New Mexico is the fifth largest state geographically and the sixth most sparsely populated in the United States. The state is approximately 121,593 square miles in size, with an average population density of 15 persons/mile. In comparison, the U.S. average population density is 79.6 persons/mile (U.S. Census Bureau, 2007).

New Mexico is designated as one of the eight Rocky Mountain States and is located in the desert southwest of the United States. Its southern neighbors are Texas and the Mexican state of Chihuahua, which comprises 90% of New Mexico's southern border (New Mexico Environment Department, 2002). Many immigrants from Mexico and Latin America enter the United States through New Mexico's southern border.

The ethnic/racial diversity of New Mexico is unique, with 57% of the population made up of ethnic or racial "minorities." New Mexico has the largest percentage of people of Hispanic ancestry within the United States, at 43% (U.S. Census Bureau, 2007). Although most Hispanics have come to the United States over the past 40 to 50 years, about 10% of "Hispanos" living in northern New Mexico are direct descendants of Spanish colonists and can trace their ancestral lineage in the "land of enchantment" from the late 1600s (Koman, 2007).

White, non-Hispanic persons make up another 43% of the population, and the American Indian/Native Alaskan population, at 10.2%, represents the second largest American Indian percentage of a state's population, after Alaska. Navajos and Pueblos make up the largest American Indian populations and live primarily in the northwestern corner of the state and along the northern Rio Grande River basin. The remainder of the population by

racial/ethnic background includes: Blacks, 2.4%; Asians, 1.3%; and two or more races, 1.5% (U.S. Census Bureau, 2007). Although this cultural and ethnic diversity is celebrated and greatly prized by New Mexico residents, the implications of the health disparities of ethnic/racial minorities must be carefully considered.

Health Risk Indicators

According to the World Health Organization (WHO; 1998), *health* is defined as “the state of complete physical, mental and social well-being.” In rural and frontier communities, many residents live in poverty, with limited economic, social, and health resources. Overall, rural populations have higher rates of alcohol abuse and tobacco use, compared with their urban counterparts. In addition, rural residents experience fewer educational opportunities and higher rates of injury and death from accidental and intentional causes.

Behavioral and dental health services are typically more difficult to obtain, and rural residents may not have health problems addressed in a timely manner. Adequate health care services may not be available locally, and transportation issues, lack of insurance, a scarcity of health practitioners, and inadequate local emergency medical services are all factors that place rural residents at risk for increased rates of illness, longer hospital stays because of delay in treatment, and the development of chronic disease. Chronic conditions that are experienced at a higher rate in rural communities include asthma, obesity, hypertension, and diabetes (Weinert, 2002).

Family and Socioeconomic Indicators

New Mexico has many socioeconomic factors that place all residents and, in particular, teens, at high risk. New Mexico has the third highest poverty rate in the United States. The overall poverty rate is 16.7 %, with 21.5% of children aged 5 to 17 years living in poverty (U.S. Census Bureau, 2004). Additionally, rural New Mexico residents fare worse than their urban counterparts economically, with 25 of the state’s 33 counties having personal incomes 75% below the nation’s average (New Mexico Department of Health, 2005). Poor families in rural areas are more likely to have parents who working, but parents are less likely to have completed high school, are less likely to be employed at a year-round, full-time job. On average, rural employees make a lower wage than workers in urban areas (O’Hare & Johnson, 2004). Table 1 shows that the poverty, uninsurance, unemployment, and high school drop-out rates in New Mexico are higher among rural residents than among urban residents and higher among racial/ethnic minorities than among White non-Hispanics.

Minority children live in families with a much higher poverty rate (27%) than do their White non-Hispanic counterparts (10%). Several reasons for lower income include a lower high school completion rate in minority populations, steady employment may be unavailable, and limited English proficiency limits the type of employment that may be obtained (Capps, Fix, Ost, Reardon-Anderson, & Passel, 2004). Additionally, children who live in families with immigrant parents are more likely to live in poverty (36%) than are children whose parents were born in the United States (22%; National Center for

Children in Poverty [NCCP], 2007). In New Mexico, 8.2% of the population is foreign born, with 77% of foreign-born residents coming from Mexico (U.S. Census Bureau, 2007).

Table 1

New Mexico Poverty, Uninsured, Unemployment, and High School Drop-Out Rates by Ethnicity/Race

	Rural	Urban	White	Hisp.	AI	Black
Poverty, all (%)	18.9 ^a	15.4 ^a	17 ^b	22 ^b	30 ^b	23 ^b
children	26 ^c	18 ^c	11 ^c	27 ^c	46 ^c	---
Uninsured, all (%)	25.5 ^a	23.7 ^a	20.3 ^d	24.9 ^d	42.8 ^d	30.9 ^d
children	21.2 ^e	18.0 ^e	13.0 ^f	22.0 ^f	---	---
Unemployment (%)	5.7 ^a	5.0 ^a	7 ^b	11 ^b	---	18 ^b
Did not complete high school (%)	25.4 ^a	18.7 ^a	6.9 ^g	27.8 ^g	---	13.1 ^g

Note. White = White non-Hispanic; Hisp.= White Hispanic; AI = American Indian. Three dashes (---) indicates data not available.

^aFrom "State Fact Sheets: New Mexico - Population, Income, Education and Employment," by United States Department of Agriculture, 2007. ^bFrom "Obstacles to New Mexico's Future Prosperity," by New Mexico Voices for Children, 2006. ^cFrom "New Mexico: Demographics of Poor Children," by NCCP, 2007. ^dFrom "Who's Uninsured in New Mexico and Why," by Families USA, 2003. ^eFrom "Health Insurance Coverage for New Mexico Counties, 2000," by U.S. Census Bureau, 2005. ^fFrom "The Kaiser Commission on Medicaid and the Uninsured," by The Henry J. Kaiser Family Foundation, 2007. ^gFrom "Dropout Rates by Race/Ethnicity (1960-2004)," by U.S. Department of Education, 2005.

Education—Completing High School

Lack of a high school degree places older teens and adults at higher risk for unemployment and less skilled, lower income employment. In New Mexico, of all adults aged 25 and older, 21.1% have not completed high school. The drop-out rate in rural New Mexico is 25.4%, whereas it is 18.7% in urban New Mexico (U.S. Department of Agriculture [USDA], 2007). In 2000, the high school drop-out rate in New Mexico was 32.8%, compared with a national average of 13.2%. Nationally, the drop-out rates by race/ethnicity in 2000 were 6.9% for White non-Hispanics, 27.8% for Hispanics, and 13.1% for Blacks (U.S. Department of Education, 2005).

Income is closely related to education. In New Mexico, 48% of poor children live in homes where a parent has less than a high school education, 33% live in homes where a parent has a high school education, and only 13% live in homes where a parent has some college education (NCCP, 2007).

Experts warn that if high school graduation rates do not increase, per capita income in the United States will decline by the year 2020. This is because of a changing demographic in the United States; the White non-Hispanic population is aging, whereas a higher percentage of young adults entering the workforce are from minority groups. With a decline in educational attainment and income, the tax base will also decline, and social and health services provided will decline as well. Because New Mexico has a large

Hispanic population, the state will be greatly affected by this phenomenon. Additionally, other countries are experiencing an increase in educational attainment, and the United States may be at a disadvantage in the global market if high school drop-out rates continue at the current rate or decline further (National Center for Public Policy and Higher Education, 2005).

Health Insurance and Access to Health Care Services

New Mexico ranks third in the nation for the number of persons without health insurance, at 23.7%, with 20 of the 33 counties experiencing an adult uninsured rate over 25% (U.S. Census Bureau, 2005). New Mexico also ranks fourth in the nation for uninsured children. The uninsured rate is 15% for children under the age of 6, 16% for children between the ages of 6 and 12, and 20% for teens aged 13 to 18. Children from low-income families are much more likely to be uninsured; 80% of New Mexico's uninsured children live in families with incomes of less than 200% of the poverty level. For 70% of uninsured children, however, at least one parent works full time (Families USA, 2006).

The most common reasons parents relate for not obtaining health insurance for their children include: they cannot afford the insurance premiums, health insurance is not available at their place of employment, or insurance coverage is not necessary because their children are healthy. However, studies have demonstrated that health insurance results in faster and more comprehensive health care access. For example, uninsured children are five times more likely to have a delayed or unmet medical, dental, or vision care need, four times more likely to have an unmet need for prescription medication, and three times more likely to have an unmet mental health need. Uninsured children are also 13 times less likely to have a "medical home," that is, a regular health care provider or clinic where they routinely receive medical care. Finally, only 46% of uninsured children had a preventive, well-child visit in the previous year, compared with more than 70% of children who had health insurance (Families USA, 2006).

In a survey of parents with uninsured children, over 50% stated that their children were healthy and did not need insurance. About half of these parents also stated, however, that they would enroll their children in Medicaid or the State Children's Health Insurance Program (SCHIP) if their child was found to be eligible. A majority of American

Indian/Alaska Native parents felt that the health care provided through Indian Health Services was sufficient (not realizing that Medicaid/SCHIP programs provide more comprehensive health services), and nearly two thirds of the remaining children came from families whose parents did not speak English (Blumberg, O'Connor, & Kenney, 2005). Parents seeking legal U.S. residency often fear delay or denial of citizenship if they apply for health benefits for their children. Often, the children were born in the United States and are citizens, but the parents are not. Nationally, one quarter of all foreign-born parents are undocumented and have come into the United States within the past 10 years. These parents are especially fearful that they will be deported and separated from their children if they seek health care or social services for their eligible family members (Capps et al., 2004).

Employment

In the past, economic, social, traditional, and cultural aspects of rural America were largely based on agriculture. Within New Mexico, 16.5% of the rural population is employed in farm and farm-related occupations, whereas fewer than 12% of rural residents are employed in agriculture-related jobs within the United States. Agricultural jobs are typically lower paying and may provide only sporadic employment. Industrial injuries are also more prevalent in agricultural jobs, particularly when employees are working with large farm animals.

The two primary agricultural commodities produced in New Mexico are dairy products and cattle/calves, representing 74% of total agricultural products; the remaining 26% includes nuts, alfalfa, and other grains (USDA, 2007). An estimated 2% to 4% of New Mexico's population is comprised of undocumented immigrants, primarily from Mexico and other Latin American countries, and many find employment in the agricultural industry (New Mexico Voices for Children, 2006).

The unemployment rate in rural New Mexico (5.7%) is higher than in urban areas (5%), and in the United States (5%). Hispanics and Blacks experience higher unemployment rates than White, non-Hispanics, and the estimated American Indian unemployment rate is close to 40% in some rural areas of New Mexico (USDA, 2007). The rate for New Mexico teens who are not attending school and are not employed is 11%, which is significantly higher than the national rate of 8.0% (Annie E. Casey Foundation, 2006).

Adolescent Health Risk Factors

The Youth Risk Behavior Surveillance System (YRBSS) is a risk-assessment tool provided by the Division of Adolescent and School Health, a section of the Centers for Disease Control and Prevention (CDC). The YRBSS is administered to a representative sample of students from private and public schools, grades 9 through 12, throughout the nation. The six major risk categories under study include: (1) unintentional injuries and violence; (2) tobacco use; (3) alcohol and other drug use; (4) risky sexual behavior that may result in unintended pregnancy or sexually transmitted diseases (STDs), including HIV infection; (5) unhealthy dietary habits; and (6) physical inactivity (CDC, 2006).

Within each category are subsets of questions relating to the risk area, and students self-report on their behavior. The YRBSS is used to determine the prevalence of risk behaviors among students and allows large districts and states to compare their findings with national or similar-size districts or states. The YRBSS has been administered from 1991 to the present, so that trends in adolescent risk behavior can be examined over time. The data are then used to measure progress toward meeting 15 health objectives identified through the Healthy People 2010 initiative.

In 2005, 87% of the schools in New Mexico participated in the YRBSS, with an overall student participation rate of 60%. Of the participants, 30.8% were in 9th grade, 26.8%

were in 10th grade, 22.6% in were in 11th grade, and 19.2% were in 12th grade. The proportion of students based on racial/ethnicity background was as follows: White non-Hispanic, 33.3%; Black, 0.7%; Hispanic, 51.7%; and Other, 14.3% (includes American Indian or Alaska Native, Pacific Islander, Native Hawaiian, Asian, and multiple-race non-Hispanic). White non-Hispanics and Blacks appear to have been slightly underrepresented, whereas Hispanics were overrepresented, according to New Mexico population demographics. Females made up 49.2% of the cohort, whereas males made up the remaining 50.8% (CDC, 2006).

Table 2 reveals how New Mexico teen reports of risk behavior compare with the national average. Listed in the table are the indicators that were significantly different, with a *p* value of < .05. Health status indicators for New Mexico teenagers correlate closely to the risk behaviors reported in the 2005 YRBSS. Each health risk category will be more examined closely in the following sections.

Unintentional Injuries and Violence

The suicide rate in New Mexico is twice as high as the national average, and suicide is the second leading cause of death among 15- to 24-year-olds in the state. Approximately 1 in 5 high school students seriously contemplate suicide, and 12% will make a suicide attempt (New Mexico Department of Health, 2005). New Mexico also ranks 12th overall in the nation for adolescent (ages 15-24) for death rates resulting from accidents, homicides, and suicides, and it has the second highest vehicle crash fatality rate for teens in the United States (New Mexico Department of Health, 2005).

Females had much lower death rates from all causes compared with males. For all causes and all races among individuals aged 15 to 24 years, the rate was 53.1/100,000 for females and 160.1 for males. In the 5- to 14-year-old age range, females had an all causes/all races death rate of 18.5, whereas males had a rate of 27.0 (New Mexico Department of Health, 2005). Table 3 depicts the death rates for New Mexico teens.

For the American Indian population nationally, suicide and homicide are the second and third leading causes of death, respectively. For American Indian youth (ages 15-24), the death rates for suicide, accidents, and assault are much higher than for other adolescents. In the 5- to 14-year-old age range, American Indians in New Mexico also have a higher rate of accidents (10.2/100,000) and suicides (2.9/100,000), as well. Overall, American Indian youth have been found to have fewer anxiety disorders, similar rates of depression, and a greater amount of substance abuse (alcohol and other drugs) compared with other teens. Mental health and substance abuse services through Indian Health Services are very limited, and state or Medicaid programs, when available, are used to fill the gaps in care (Technical Assistance Collaborative [TAC], 2002).

Table 2
Youth Risk Behavior Survey, 2005: Comparison of Results for New Mexico and the United States

Category/reported behavior by percentage	NM	U.S.
• Unintentional injuries and violence		
Drove a car or other vehicle after drinking alcohol in past 30 days	12.0	9.9
Carried a weapon, such as a gun, knife, or club in past 30 days	24.5	18.5
Carried a weapon, such as a gun, knife, or club on school property in past 30 days	8.6	6.0
Been threatened or injured with a weapon, such as a gun, knife, or club on school property in past 12 months	10.4	7.9
Made a plan about how to attempt suicide in past 12 months	15.7	13.0
Actually attempted suicide 1 or more times in past 12 months	12.5	8.4
Suicide attempt resulted in an injury, poisoning, or overdose that necessitated treatment in past 12 months	5.1	2.3
• Tobacco use		
Ever tried cigarette smoking, even 1-2 puffs	62.0	52.3
Current smokers: smoked more than 10 cigarettes/day in past 30 days	5.8	10.7
Younger than 18 years old and current smoker: bought cigarettes in store or gas station during the past 30 days	11.4	15.2
Smoked cigarettes on school property in past 30 days	10.2	6.8
Smoked cigars, cigarillos, or little cigars in past 30 days	21.3	14.0
• Alcohol and other drugs		
Had at least 1 alcoholic drink on school property in past 30 days	7.6	4.3
Tried marijuana for the first time before 13 years of age	20.7	8.7
Used marijuana 1 or more times during past 30 days	26.2	10.2
Used marijuana on school property in the past 30 days	8.4	4.5
Used any form of cocaine in past 30 days	7.9	3.4
Ever used a needle to inject any illegal drug into body	4.3	2.1
Offered, sold, or given an illegal drug by someone on school property in past 30 days	33.5	25.4
• Sexual behavior	--- ^a	--- ^a
• Dietary behaviors		
Ate less food, fewer calories, or foods low in fat to lose weight or keep from gaining weight in past 30 days	36.0	40.7
Vomited or took laxatives to lose weight or to keep from gaining weight in past 30 days	7.0	4.5
Ate 5 or more servings/day of fruits and vegetables in past 7 days	17.8	20.1
• Physical activity		
Exercise or physical activity that made you sweat and breathe hard for 20 minutes or more on 3 or more of the past 7 days	57.6	64.1
At least 20 minutes of vigorous physical activity on 3 days or 30 minutes of moderate physical activity on 5 days in past week	61.0	68.7
Attended PE classes in school on 1 or more days in past 7 days	41.5	54.2
• Health condition		
Ever told by doctor or nurse you have asthma	22.0	17.0

Note. NM= New Mexico; PE = physical education.

^aNo behaviors reported were statistically different. From "Youth Online: Comprehensive Results," by CDC, 2006.

Table 3
New Mexico: Death Rates by Race/Ethnicity and Causes of Death, 2003-2005

Cause of death (rate per 100,000)	Rate, all	AI	Asian	Black	Hisp.	White
All causes	108.0	146.8	30.1	71.1	121.5	81.6
Accident (unintentional)	53.3	77.0	35.5	57.4	42.4	---
Intentional (suicide)	20.8	28.4	18.1	10.7	23.6	15.1
Malignant neoplasms (cancer)	3.9	4.1	---	---	5.3	2.6
Assault (homicide)	14.2	21.1	---	10.7	19.1	5.8

Note. AI = American Indian; Hisp = White Hispanic; White = White non-Hispanic. Three dashes (---) indicates data not available. From "New Mexico Selected Health Statistics Annual Report," by New Mexico Department of Health, 2005.

Mexican American youth share a similar rate of mental health disorders with White non-Hispanic adolescents, whereas immigrant youth from Mexico have higher rates of anxiety and depression. However, the Mexican immigrant population's use of mental health services is very low in proportion to the needs identified. This may be the result of cultural factors, language barriers, lack of health insurance coverage, and accessibility of services (TAC, 2002).

Rural and frontier areas in New Mexico have a severe scarcity of mental health professionals and services. According to the TAC (2002) report, "Behavioral Health Needs & Gaps in New Mexico," there are fewer mental health professionals in New Mexico than the national average. Shortages in professional staff include psychiatrists (13.7/100,000 in NM vs. 14.2/100,000 in the United States), psychologists (25.2 in NM vs. 28.2/100,000 in the United States) and social workers (31.2 in NM vs. 36.2/100,000 in the United States). The report also noted that the majority of mental health professionals are located in the two counties with the largest urban populations, Bernalillo (which includes the city of Albuquerque) and Santa Fe Counties. Eighty percent of psychiatrists, 70% of psychologists, 53% of counselors, and 47% of social workers for the entire state are concentrated in these two adjoining counties (TAC, 2002).

Because of the scarcity of mental health providers nationwide, especially in rural areas, primary care practitioners are now prescribing 70% of all psychotropic drugs in the United States. In a study of pediatric and family practice doctors, 72% had prescribed an antidepressant to a child or adolescent, yet only 8% felt they had received adequate mental health and pharmaceutical training to do so safely (TAC, 2002).

In a related survey of NM public schools designed to identify mental health services gaps, only 46.4% reported that they received community mental health provider services, and 93% stated that additional mental health resources are necessary to meet the identified needs of their students (New Mexico Department of Health, 2005).

Use of Alcohol and Other Drugs

The abuse of alcohol and other drugs is often a factor in accidents, violence and suicide. Approximately 50% of all Native American homicides and suicides are alcohol related. Additionally, Native Americans abuse drugs, including alcohol, at a much higher rate than other ethnic/racial groups. According to the TAC study, exposure to a highly violent environment makes Native American adolescents more likely to abuse drugs (TAC, 2002).

Alcohol-induced deaths in New Mexico were 141.4% higher than the national rate of 7.0/100,000. Four northeast rural counties had the highest rates: McKinley, 45.2/100,000; Rio Arriba, 40.6/100,000; Cibola, 38.8/100,000; and San Miguel, 34.3/100,000 (McKinley and Rio Arriba Counties each had a death rate that was 2 1/2 times higher than for the state overall). The drug-induced death rate, at 18.9/100,000, was twice the national rate of 9.9. Rio Arriba County had the highest death rate, at 46.9, which was 2 1/2 times New Mexico's overall rate (NM Department of Health, 2005).

In a study to determine why there is this cluster of abuse, 47 drug users in northern New Mexico were interviewed about the reasons for the use of drugs, including alcohol, marijuana, heroin, cocaine, and prescription drugs. Alcohol and marijuana use is multigenerational, as well as normalized within social networks. Unmet mental health needs and exposure to traumatic events (including death, physical abuse, and sexual abuse) were also identified as related risks. Exposure to such trauma and drug use further perpetuates depression, anxiety, and post-traumatic stress disorder symptoms. This population was also found to be reluctant to seek mental health and substance abuse care (Willging, Trujillo, & La Luz, 2004).

Substance and alcohol abuse is very high among Hispanic adolescents and leads to an increased risk of dependence into adulthood. However, this phenomenon is gender specific. Mexican American men are more likely to abuse alcohol and illegal drugs than White non-Hispanic men, whereas Mexican American women are less likely to use alcohol or drugs than White, non-Hispanic women (TAC, 2002).

Also, as demonstrated in the 2005 YRBSS, school is not the safe haven many parents and other adults might imagine. A total of 10.2% of New Mexican adolescents report that they smoked cigarettes on school property, 7.6% drank alcohol, 10.4% took a weapon to school, 24.5% were threatened with a weapon at school, 33.5% were offered, given, or sold drugs on the school campus, and 26.2% smoked marijuana on school property. All of these indicators were significantly higher for New Mexico students than the U.S. average and may also demonstrate "normalized" behavior with peer groups at school (CDC, 2006).

Tobacco Use

New Mexico ranks sixth nationally for the percentage of high school students who smoke, 25.7% compared with the U.S. rate of 23.0% (Trust for America's Health, 2007).

American Indian teens in grades 7 through 12 have the highest tobacco use rate at 60% (smoked in the past year), whereas Hispanic teens (48%) have a slightly higher smoking prevalence than White non-Hispanic teens (41%). Additionally, children who are supervised by parents after school (38%) or participated in after-school activities (39%), have a much lower smoking prevalence rate than students who were alone after school (47%), or “hung out” with friends after school (65%); New Mexico Department of Health Tobacco Control Program, 1998).

Sexual Behavior

Unprotected sexual activity can lead to pregnancy and sexually transmitted diseases. Having children early results in lower levels of education attainment, lower lifetime income, and higher use of public assistance, especially if the child is born to a single mother. It is estimated that state expenditures relating to teen pregnancy and parenting support and service programs have a price tag of approximately \$1 billion per year (New Mexico Voices for Children, 2007).

New Mexico has the fourth highest teen pregnancy rate in the United States (ages 15-19). Hispanic women have a much higher pregnancy rate and than White non-Hispanic adolescent females and other ethnic/minority females. Teen birth rates are 2 to 3 times higher for Black, American Indian, and Hispanic females nationally. In New Mexico, teen birth rates were 45.4/1,000 for Blacks, 59.7/1,000 for American Indians, 86.5/1,000 for Hispanics, and 32.9/1,000 for White non-Hispanics (New Mexico Voices for Children, 2007).

STDs, including HIV, are more prevalent among minority teens. Early initiation of sexual activity also increases the threat of teen pregnancy. In 2005, 5% of New Mexico female students and 12% of male students reported being sexually active by the age of 13. A greater percentage of minority students are sexually active in high school: 54.8% of Black, 36% of Hispanic, and 28.2% of American Indian students, compared with 23.1% of White non-Hispanic students. New Mexico has the fifth highest chlamydia STD rate in the country (New Mexico Voices for Children, 2007).

Dietary Habits and Physical Activity

New Mexico has the 10th highest incidence rate of overweight/obese youth in the country. Two of five minority children are overweight or obese; 40.6% of Hispanic children compared with 28.7% of White non-Hispanic children. Urban white, non-Hispanic children have a much lower incidence of being overweight/obese at 13.9%. More New Mexico rural children, age 10-17, are overweight (36%), than children living in urban areas (24.6%). More rural children are obese, at 21.3% and urban children have an obesity rate of 13.9%. Children with a lower family income (<200%) had a higher incidence of being overweight or obese (37.3%) than children with family incomes above 200% of poverty (30.9%) (South Carolina Rural Health Research Center, 2007).

More than a quarter of rural children and more than a third of urban children failed to meet recommended levels of physical activity (South Carolina Rural Health Research Center, 2007). Many school districts have very limited physical education budgets, and in the 2005 YBRSS, only 41.5% of New Mexico 9th-12th grade students had one or more physical education classes on a weekly basis. Additionally, children are eating higher calorie processed foods and less high fiber foods including whole grains, fruits and vegetables. Only 17.8% of New Mexico students ate 5 servings of fruits and vegetables a day, according to the YBRSS data (CDC, 2006).

Asthma

New Mexico has the ninth highest asthma rate for high school students in the country (22.0% in New Mexico vs. 4.1% in the United States; Trust for America's Health, 2007). Over the past 20 years, a sharp rise in asthma in children has been noted, with a five-fold increase in hospitalizations and, in the same period, childhood deaths have increased three-fold. Persons with lower incomes, minority populations, and persons living in large urban areas are at increased risk. In New Mexico, an increase in the number of Hispanic and American Indian populations has been noted (CDC, 2007).

Although the etiology of this sharp rise in the incidence of asthma is unclear, the condition can be controlled with medications and avoidance of environmental triggers, (dust, pollen, wood smoke, dust mites, cockroaches, family pets and cigarette smoke). Psychological triggers such as stress and anxiety can also worsen asthma symptoms.

The CDC created the Asthma Control Program in 1999 to track the incidence of asthma, translate scientific data into public health practices and programs, and develop partnerships throughout the country. The Environmental Protection Agency is a partner, as well as state health departments, including the New Mexico Department of Health.

Vulnerability and Resiliency

New Mexico adolescents are presented with many health vulnerabilities. Within the United States, New Mexico has:

- the 6th lowest population density,
- the 3rd highest poverty rate,
- a three-fold increase in high school drop-out rate when compared to the national average,
- the 3rd highest health uninsured rate,
- an unemployment rate higher than the national average,
- the 2nd highest teen suicide rate,
- the 2nd highest teen vehicular crash fatality rate,
- the 6th highest teen smoking rate,
- the 4th highest teen pregnancy rate,
- the 5th highest chlamydia STD rate,
- the 10th highest teen overweight/obesity rate, and

- the 9th highest asthma rate for high school students.

Given the risk factors among adolescents in New Mexico, it is easy to identify health vulnerabilities. At the same time, it is very difficult to determine how to begin the building of resiliency factors to improve individual and group health status.

Counterbalancing Forces

Health promotion research focuses on factors that contribute to long-term, sustained health for individuals and groups within a community. Nurses and other community health professionals should be sensitive to the lived experiences of community members and be respectful of the efforts being made to improve health status, sometimes against tremendous odds. Resources and strengths of individuals and the community as a whole need to be recognized and augmented whenever possible. When a balance is struck between negative risk factors and health-enhancing factors, such as resilience, community hardiness, and positive support systems, successful outcomes are achieved (Bushy, 2000).

In a review of positive youth development programs in the United States (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004), several common themes to promote successful health outcomes for teens were identified:

Strengthen social, emotional, behavioral, cognitive, and moral competencies;
 Develop self-efficacy skills;
 Provide clear standards for youth behavior, with input by family and community members;
 Increase healthy bonding activities with adults, peers, and younger children;
 Provide expanded opportunities and recognition to teens for positive community involvement;
 Provide structure and consistency in program delivery; and
 Provide a consistent, long-term commitment to the program goals and objectives within the community.

To be successful, community health professionals must fill several important roles: advocate, case manager, educator, counselor, collaborator, and partner. There are no easy solutions to meet the many needs of rural teens in New Mexico, and with fewer resources and reduced health care access, rural communities are struggling.

Programs funded by national and state agencies are often successful, but sometimes lack longevity, when funding priorities cause a shift of resources out of the community. Advocacy and collaboration with key stakeholders locally, statewide, and nationally are key in assuring that New Mexico adolescents are provided with the resiliency tools they so urgently need—and deserve.

References

- Annie E. Casey Foundation. (2006). *Kids count state-level data online: New Mexico*. Retrieved November 24, 2007, from http://www.kidscount.org/sld/profile_results.jsp?r=33&d=1
- Blumberg, S. J., O'Conner, K. S., & Kenney, G. (2005). Unworried parents of well children: A look at uninsured children who reportedly did not need health insurance. *Pediatrics*, *116*, 345-351.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. London: Sage Publications.
- Capps, R., Fix, M., Ost, J., Reardon-Anderson, J., & Passel, J. (2004). *The health and well-being of young children of immigrants*. Washington, DC: The Urban Institute.
- Catalano, R. F., Berglund, M. L., Ryan, J., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *The ANNALS of the American Academy of Political and Social Science*, *98*, 111-122.
- Centers for Disease Control and Prevention. (2006). *Youth online: Comprehensive results. Results for New Mexico 2005 compared with United States 2005*. Retrieved November 17, 2005, from <http://apps.nccd.cdc.gov/yrbss/CompTableTwoLoc.asp?X=1&Loc1=XX&Loc2=NM&Year1=2005&Year2=2005>
- Centers for Disease Control and Prevention. (2007). *Asthma: Asthma's impact on children and adolescents*. Retrieved November 27, 2007, from <http://www.cdc.gov/asthma/children.htm>
- Diderichsen, F., Evans, T., & Whitehead, M. (2001). The social basis of disparities in health. In T. Evans, M. Whitehead, F. Diderichsen, A. Bhuiya, & M. Wirth (Eds.), *Challenging inequities in health: From ethics to action* (pp. 13-23). Oxford, United Kingdom: Oxford University Press.
- Every Child Matters Education Fund. (2007). *Homeland insecurity: Where New Mexico ranks on various measures of child well-being*. Retrieved November 11, 2007, from <http://www.everychildmatters.org/homelandinsecurity/states-NM.html>
- Families USA. (2003). *Who's uninsured in New Mexico and why?* Washington, DC: Author.
- Henry J. Kaiser Family Foundation. (2007). *The Kaiser commission on Medicaid and the uninsured*. Washington, DC: Author.
- Institute of Medicine. (2005). *Quality through collaboration: The future of rural health*. Washington, DC: The National Academies Press.
- Kaiser Family Foundation. (2004). *New Mexico at a glance*. Retrieved October 27, 2007, from <http://www.statehealthfacts.org/profileglance.jsp?rgn=33>
- Komen, R. G. (2007). *The Hispano ranchos of northern New Mexico: Continuity and change*. Retrieved November 25, 2007, from <http://www.nps.gov/nr/twhp/wwwlps/lessons/96ranchos/96ranchos.htm>
- National Center for Children in Poverty. (2007). *New Mexico: Demographics of poor children*. Retrieved November 25, 2007, from: http://www.nccp.org/profiles/NM_profile_7.html

- National Center for Public Policy and Higher Education. (2005). *Per capita income of U.S. workforce projected to decline if education doesn't improve*. San Jose, CA: Author.
- New Mexico Department of Health. (2005). *New Mexico Comprehensive Strategic Health Plan*. Santa Fe, NM: Author.
- New Mexico Department of Health Tobacco Control Program. (1998). *Tobacco use prevalence in New Mexico by ethnicity*. Retrieved November 28, 2007, from <http://tobaccofreedom.org/issues/trends/newmexico.html>
- New Mexico Environment Department. (2007). *New Mexico: A geographical description*. Retrieved November 23, 2007, from http://www.nmenv.state.nm.us/swqb/305b/1998/1998_305b_chapter_1.pdf
- New Mexico Voices for Children. (2006). *Obstacles to New Mexico's future prosperity*. Albuquerque, NM: Author.
- New Mexico Voices for Children. (2007). *Race matters: Reproductive health in New Mexico*. Albuquerque, NM: Author.
- O'Hare, W. P., & Johnson, K. M. (2004). Child poverty in rural America. *Population Reference Bureau: Reports on America*, 4, 1-20.
- Purdy, I. B. (2004). Vulnerable: A concept analysis. *Nursing Forum*, 39, 25-34.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57, 316-331.
- South Carolina Rural Health Research Center. (2007). *Overweight and physical inactivity among rural children aged 10-17: A national and state portrait*. Columbia, SC: Author.
- Technical Assistance Collaborative. (2002). *Behavioral health needs & gaps in New Mexico*. Boston: Author.
- Trust for America's Health. (2007). *The state of your health: New Mexico*. Retrieved October 28, 2007, from Author's website: <http://healthyamericans.org/state/index.php?StateID=NM>
- United States Department of Agriculture. (2007). *State fact sheets: New Mexico*. Retrieved November 23, 2007, from <http://www.ers.usda.gov/StateFacts/NM.HTM>
- U.S. Census Bureau (2004). *Small area income & poverty estimates: Estimates for New Mexico counties, 2004*. Retrieved November 17, 2007, from: http://www.census.gov/cgi-bin/saiper/saiper.cgi?year=2004&type=county&table=county&submit=States%20%20Counties&areas=all&display_data=Display%20Data&state=35
- U.S. Census Bureau. (2005). *Health insurance coverage for New Mexico counties, 2000: Experimental estimates*. Retrieved November 17, 2007, from http://www.census.gov/cgi-bin/hhes/sahie/sahie.cgi?year=2000&type=county&table=sahiecnty&submit=States%20%20Counties&areas=all&display_data=Display%20Data&state=35
- U.S. Census Bureau. (2007). *State and county quickfacts: New Mexico*. Retrieved November 18, 2007, from: <http://quickfacts.census.gov/qfd/states/35000.html>
- U.S. Department of Education. (2005). *Drop-out rates by race/ethnicity (1960-2004)*. Retrieved November 25, 2007, from <http://www.learningtofinish.org/doku.php?id=stats>
- W. K. Kellogg Foundation. (2002). *Perceptions of rural America*. Battle Creek, MI: Author. Retrieved October 18, 2007, from <http://www.wkkf.org/pubs/FoodRur/>

pub2973.pdf

Weinert, C. (2002). Rural nursing process: Riddle, rhyme, reality. *Keynote address in Communicating Nursing Research in Conference Proceedings. Vol. 35: Win Assembly, Vol. 10, Health disparities: Meeting the challenge* (pp. 37-49). San Diego, CA: Western Institute of Nursing.

Willing, C. E., Trujillo, M., & La Luz, W. A. (2004). *Ethnography of drug use and barriers to care in the Espanola Valley of New Mexico* (pp. 35-37). Santa Fe: New Mexico State Epidemiology Work Group.

World Health Organization. (1998). *Definition of health in WHO constitution*. Retrieved November 24, 2007, from <http://www.euro.who.int/observatory/Glossary/TopPage?phrase=Health>

2 Culture of Nursing

Jane L. Smith, RN, MSN

*Man is an animal suspended in webs of significance he himself
has spun. I take culture to be those webs.*

Max Weber as quoted in Kaminski (2006, p. 6)

Beginning with Nightingale, nursing has had a focus on the cultural aspects of care (DeSantis & Lipson, 2007). The Transcultural Nursing Society (TCN) was founded in the mid-1970s with the purpose of calling attention to the importance of different cultures and to assist nurses in providing culturally appropriate care. By 1983, the National League for Nursing began to address ethnic and racial diversity, requiring that these also be a part of nursing curricula. In 2001, the Office of Minority Health published 14 principles, the National Standards for Culturally and Linguistically Appropriate Services for Health Care. The Joint Commission on Accreditation of Healthcare Organizations required that all health care facilities address patients' needs for language interpretation and communication concerns in 2006. Fuehn (2005) writes that cultural competence is a "combination of attitudes and skills that enable the nurse to translate cultural awareness into the reality of culturally competent clinical practice" (p. 154).

Culture and rurality are vitally important considerations in the research involving Hispanic nursing students and their success in nursing programs. The area in which I live is a metropolitan area surrounded by rural communities. Many of the nursing students I teach are from rural communities. In addition, many of my students are from Mexico or southern New Mexico, and Spanish is their first language. These students need to be approached in a culturally competent manner that includes knowledge of the rural communities they come from in order to assist them in their nursing studies appropriately. As a nursing instructor, it is vital that I have a firm grasp of the phenomena of both culture and rurality to be able to teach nursing students appropriately.

Sims-Giddens (2002) found that an associate-degree nursing program had pass rates of 69% for students who spoke English as a first language and 60% for Mexican American students. This was not found to be a significant difference. However, the National Council Licensure Examination (NCLEX) pass rates of 94% for students with English as a first language and 74% for Mexican American nursing students were significant. This is important because the El Paso, Texas, area is 78% Hispanic, and the Las Cruces, New Mexico, area is over 48% Hispanic according to the 2000 census records.

With continued growth in computers and technology, the world is becoming a smaller place, and interaction with persons from diverse cultures is more and more likely (Lin, 2006). This necessitates being able to see beyond ourselves and our cultures and looking at the world through the eyes of others with differing cultural values. As the diversity of patient populations increases, nurses need to prepare to deliver culturally appropriate and competent care (Fuehn, 2005).

The Hispanic students I work with often have difficulty with the current curriculum in nursing. I do not feel it is due to a lack of intelligence, but rather a lack of understanding on the part of the nursing instructors about the student's culture. I want to incorporate ethnography into my research about Hispanic students in a southern New Mexico nursing program. Reviewing culture will help me develop more insight and enable me to approach my nursing students with an open mind.

The Merriam Webster Online Dictionary (2007) defines rural as "relating to the country, country people or life, or agriculture." Rural has many definitions and meanings (Bushy, 2000). Generally a rural area is defined as a place of low population density (IOM, 2005). The Census Bureau has the longest standing definition of rural as open country and settlements of 2,500 inhabitants (Bushy, 2000; Institute of Medicine [IOM], 2005). The Office of Management and the Budget define rural as being non-metro or non-urban (IOM, 2005). The U.S. Department of Health and Human Services defines rural as an area having 7 to 99 residents per square mile (Bushy, 2000). The IOM (2005) defines rural as being an area with 2,500 or fewer residents. These definitions speak to population density but not population make-up. The U.S. Department of Agriculture defines different types of rural areas: farming dependent, manufacturing dependent, services dependent, retirement dependent, federal lands, and persistent poverty (Bushy, 2000). Rural types do not occur independently, but several types may be represented in one area. Rural hospitals can and have developed qualities and unique characteristics that support institutional excellence (Beil-Hildebrand, 2002). Working to improve the institution or organization needs to become a priority for employees. This will create a happier work environment for nurses as well as a more pleasant environment for patients.

Rural areas are diverse and heterogeneous. Weinert and Burman (1999) use the metaphor of a quilt to help define rural. The different squares represent different rural areas. All of the squares have differing colors, sizes, and stitches, much as rural areas have variable populations, incomes, languages, jobs, and cultures. Culture is an especially important aspect when evaluating a rural area. When health care providers examine geographical cultures or multiculturalism, there is a tendency to stereotype persons (Kaminski, 2006). This results in a disenfranchisement of the person whose culture is different.

For this chapter, rural is defined as a geographical area with a population density of 7 to 99 persons per square mile. The defining characteristics of each individual area are as varied as the individual squares in a handmade quilt. The culture of each area is unique, with self-reliance, independence, and community connections playing a central role. These cultures need to be embraced and accepted.

Culture must be examined in a context, for it does not exist in a vacuum (Kaminski, 2006). Some of the definitions for culture in the Merriam Webster Online Dictionary (2007) are: “1) cultivation, tillage, 2) the act of developing the intellectual and moral faculties especially by education, 3) expert care and training, 4) a. enlightenment and excellence of taste acquired by intellectual and aesthetic training, 5) a. the integrated pattern of human knowledge, belief, and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations, b. the customary beliefs, social forms, and material traits of a racial, religious, or social group, c. the set of shared attitudes, values, goals, and practices that characterizes an institution or organization, d. the set of values, conventions, or social practices associated with a particular field, activity, or societal characteristic.” These definitions cover much but this chapter is focused on culture as the “set of values, conventions, or social practices associated with a particular field.

Leininger (1994) describes nursing culture as the “learned and transmitted values, symbols, patterns, and normative practices of members of the nursing profession of a particular society” (p. 19). She introduces the idea of subcultures within nursing, such as operating room nurses or nurses working within a particular hospital unit or clinic. The ideal nursing culture consists of the best attributes, most desirable values, and finest practices. This ideal is not what is encountered in the work setting. The nursing culture actually existing in work places is different from the ideal. It is this ideal, however, that is taught in nursing schools. Nursing culture is the “articulation of the intention to nurse” (Locsin, 2002, p. 3).

Culture expressed metaphorically is “a type of indicator of the optimal way of acting in the world and of understanding the world, and an indicator of the boundaries that influence the selection of experience in this optimal way” (Leontiev, 2006, p. 52). In addition, Leontiev’s definition of culture “relates to those aspects of society in which all of its members participate and that they all possess it and pass it down to the next generation” (p. 51). These definitions are closely linked to the definition used by Agar (1994). He defines it as something other people “have” and more. Culture also “happens to you” when you encounter other people. Agar stipulates that language is a vital part of a person’s culture and even uses the term “languaculture” to emphasize this importance. Carrithers (1992) writes of the constant changes that occur in cultures.

There are five major components to any cultural system (Kaminski, 2006). They are: a group has a defined set of members, there exists a specific environment or context within which this group functions, there are equipment and artifacts used specifically by this group of persons, cultural traditions exist that portray the past decisions within the group, and there are behaviors, rituals, and activities that have become part of this group’s actions. Cultural meaning is a human phenomenon that is continuously transforming through lived experiences and interactions (Mendyka, 2000).

Vygotsky’s theory states that the individual’s intellectual and social development is a result of his or her culture (Gallagher, 1999; Kristendotter, 2007). All learning occurs within a social context. Bruner advocates that people are cultural agents (Kaminski,

2006). Meaning in life is negotiated within the cultural context of the person. The definition of culture used by Daring defined culture as a set of transactions and processes during which actions are produced. Culture gives value to experiences. Chapman (2002) writes about a cultural revolution in nursing in which the patient becomes the center of health care delivery instead of the processes and systems that deliver care. The members are able to work because of the culture. The organizational culture revolves around the actions, ideals, feelings, and relationships of the members of the cultural group. This is how the members can change their culture.

It is my perspective that culture is a phenomenon and not simply a concept. Culture encompasses so much of what makes each of us unique. Culture is constantly changing as we change. We start to learn our first language as infants and we learn many new skills and ideas, but we always have a frame of reference formed by our language and culture. Culture affects how we respond to different situations, people, and ideas. It provides a basis for each person's view of the world. We have room to maneuver within our cultural boundaries.

The cultural aspect of patient care is a common theme in nursing (Culley, 1996). Teaching cultural competence is an essential component of nursing education in the 21st century (Anderson, 2004). It aids students' development of empathy, understanding, and compassion. In 1997, Frels, Scott, and Schramm wrote about a process to create a model multicultural curriculum for nurse anesthetists. In 2001, Canales and Bowers researched conceptualizations of culturally competent care. They found that Hispanic nursing faculty did not differentiate between competent care and culturally competent care. Instead, Hispanic faculty focused on helping students connect with persons different from themselves. The National Review of Nursing Education (2001), reviewing Australian nursing education, expounds upon the importance of multicultural nursing education. Leininger is a founder and supporter of the TCN (2007) concept. Multiculturalism fosters the development of respect for one's own culture and the cultures of others (Gerrish, 2004). Cultural competence is designated as a "dynamic" and constantly changing process (MacAvoy & Lippman, 2001).

Leininger's (2002) sunrise enabler shows how generic care, nursing care practices, and professional care or cure practices influence individuals, families, groups, communities, and institutions in diverse life contexts. Also, technology, religion, philosophy, social factors, education, economics, politics, legalities, and cultural values, beliefs, and life ways are influenced by the world view and in turn influence care expressions, patterns, and practices. The world view, cultural dimensions, and social structure dimensions affect everything. Knowledge, in all areas, leads to culturally congruent care for health, well-being, or dying.

Cultural differences influence health care needs (Bindler, Allen, & Paul, 2004). Hoffmann, Messmer, Hill-Rodriguez, and Vazquez (2005) list three ways to integrate cultural competence into nursing curricula. They are to: travel abroad for learning experiences, include guest speakers from other cultures, and provide seminars and conferences about cultural competence. All of these may not be realistic for every nursing

program. Teaching cultural competence should include awareness of one's own culture, gaining knowledge of another's culture, and recognizing diversity as a normal component in our society.

Martino (2005) points out that prejudice and discrimination still exist today. For instance, African Americans are still less likely to undergo invasive cardiac procedures than European Americans. The author states that in the next 50 years, less than one half of the population of the United States will be European American. Cultural competence is linked to reducing health disparities among the racially and ethnically different, as well as the uninsured and underserved (Lipson & DeSantis, 2007). Traditional methods for teaching cultural competence fail to take existing prejudices and class privilege of the nursing student into account and are wholly inadequate (Newcomb, Cagle, & Walker, 2006).

Nurse educators need to examine how they teach history, theory, and power (Allen, 2006). According to Allen, the current curriculum is not neutral, but remains biased. He believes that it is driven by White culture and is class based. He states, "We still put up Christmas trees in December and wonder why our Jewish and Muslim students don't feel at home" (Allen, 2006, p. 71). The institutional climate needs careful assessment and improvement before cultural competence may be standardized (Campinha-Bacote, 2006). This would dictate the implementation of strategies to encourage the addition of diverse perspectives in the classroom. Underrepresented students and faculty should feel free to support the addition of these perspectives.

Leishman (2006) listed five key components needed to become culturally competent. They are 1) valuing diversity, 2) self-assessment of cultural values and beliefs, 3) understanding that culture is dynamic, 4) possessing institutional cultural knowledge, and 5) adapting delivery of service to reflect an understanding of cultural diversity. The TCN Website (2005a) includes these five essential elements in culturally competent care.

The Culturally Conscious Model of Care (Campinha-Bacote, 2007) includes cultural awareness, cultural skill, cultural knowledge, cultural encounters, and cultural desire. The mnemonic ASKED was developed to assist with memorizing these terms. The model is represented by an active volcano with lava. The lava contains cultural awareness, skill, knowledge, and encounters. The volcano itself is the desire. The entire model is ultimately driven by the person's desire to learn about and become culturally competent.

Knowledge, sensitivity, and competence related to cultural competence have been identified as essential core components for safe, effective, and quality nursing care (Underwood, 2006). Undergraduate nursing students require didactic and clinical experiences that will promote cultural awareness (Weiland & Hoerst, 2006). This is especially true as the population in the United States ages and becomes more diverse.

The addition of disabled persons as a culturally separate group is yet another aspect of cultural competence in nursing (Marks, 2007). Inconsistent or incongruent responses from health care providers may worry disabled persons. This may prevent them from

seeking necessary health care. Nurse educators are currently being challenged to consider admitting disabled students into nursing programs. Cultural competence, additionally, entails providing a diverse nursing workforce. The inclusion of disabled students in nursing schools will help to strengthen the diversity of the workforce and assist with providing culturally competent care (Marks, 2007).

Nursing is both an art and a science. The history of nursing, with its “traditions, rituals, myths, routines, and stories” (Kaminski, 2005, p. 1) helps to construct nursing culture. Nursing culture is dynamic and has structure. Complex human interactions continuously help to modify nursing culture, and the structure offers patterns that then influence the interactions. Nursing became focused on illness in the past. It adopted medical terminology, and women became the dominant gender. For many years, this image of nursing persisted, and nursing is still seen as a caring profession still dominated by physicians. The more powerful medical culture has had a major impact on nursing culture. Today, nursing has become diversified and utilizes highly specialized technology, equipment, and knowledge. Nurses are held accountable for planning and implementing holistic care for all patients. This is expected, even with high patient acuity, heavy workloads, and overtime demands from employers. This is all having a direct impact on the culture of nursing.

Holland (1993) studied rituals within the organizational cultures employing nurses. Specifically, the study looked at how organizational culture influenced nurses and how the power structure in these institutions affected nurses. The study determined that ritual is part of the nursing culture and needs to be examined carefully before initiating any change in it. Nursing is a part of the world culture, and nurses must start to understand their own and other cultures in order to continue to grow and give culturally competent care.

Western culture, such as we have in much of the United States, operates in monochronic time (Kaminski, 2006), that is, time that is linear, or one thing occurs and then a second thing occurs. Other cultures may utilize polychronic time, which allows several things to occur at the same time. Monochronic time emphasizes the actions, whereas polychronic time emphasizes the actor and relatedness rather than the actions. Nurses sometimes impose set times for eating, bathing, taking medication, and so on (Farrell, 2001). The nurse cannot consider his or her work done until all of the tasks have been completed.

Puzan (2003) writes that race, in reality, refers to people of color in the United States. People of color are those who are labeled by “race.” The author states, “Under the rubric of ‘cultural diversity’ nurses are taught that health beliefs and self-care practices associated with certain non-white populations need to be identified and reconciled within the white, Eurocentric medical model” (Puzan, 2003, p. 194). This implies that nurses must work to “fit” other cultures health beliefs and practices into the existing health care culture, when in reality, it is acceptable to simply accept different cultural beliefs and actions. They do not need to “fit” into anything but instead need to be respected and acknowledged. Society, power structures, communities, and families have all impacted nursing culture. Farrell (2001) considers the high number of women in nursing part of the

reason that the power structures have not yet changed. Patients can be perceived as tasks instead of persons with health care issues.

Nurses and other health care providers have accepted the biomedical model as fact instead of realizing that the experience of illness is in actuality very different (Huntington & Gilmour, 2001). Holistic care demands that the nurse see past the biomedical model and perceive patients as whole beings with their own cultural beliefs and values. The patient must be treated as something other than a “cholecystectomy” (Kaminski, 2006). The patient’s perception of the health care world is colored by the procedures needed and the timetables set by health care providers (Lindholm & Eriksson, 1993). Hospitalization further alters how the patient sees the world. It is important how the nurse and patient together shape and produce a multidimensional culture with working structures (Suominen, Kovasin, & Ketola, 1997). It is through shared and learned experiences that culture is formed and expressed. There are invisible structures in culture that guide behavior. These structures are taught to the next generation by the current one.

The ideal cultural essence changes and evolves in multiple ways all at the same time (Holmes & Gastaldo, 2004). The changes are not linear and orderly. As changes occur, there is fluidity within the nursing culture. This allows for deconstruction and reconstruction as the nurse evaluates nursing culture. Personal “knowing” is a central concept within the nursing culture (Little, 2006). This is crucial because the perception of illness is very subjective and varies greatly between patients.

Nursing education teaches an idealized nursing culture that embodies all the best nursing has to offer (Kaminski, 2006). Nursing students are taught to conduct research, become change agents, and have respect for the patient and the patient’s culture. There is an incongruence between this idealized nursing culture being taught and the nursing culture that students encounter during clinical and after graduation. Nursing students are enculturated into the workplace culture (Holland, 1999). Some students may choose to accept the culture they encounter and not attempt to make changes, or they can become active participants who encourage needed changes. New graduate nurses must learn how to become accepted into the workplace culture without relinquishing the ideal nursing culture. Nursing faculty must spend time familiarizing students with these existing cultures so they can recognize them when encountered and effect changes. Students need to learn to question nursing practices that seem outdated and potentially harmful or at the least wasteful, even though set routines and standard regimens offer safety and security (Holmes & Gastaldo, 2004). Normalization of nursing procedure is not wrong, but it must be remembered that the reasons and rationales behind these regimens need to be scrutinized often to determine if they are still appropriate. Intuition and reflective thinking are important processes that nurses use (Benner, 2001; Kaminski, 2005). These need to become part of the nursing culture.

The presence of organizational cultures in which the nursing culture must function creates tensions and can lead to conflict among nurses and poor working relationships (Farrell, 2001). New graduate nurses who are supposed to quickly acclimate themselves are often socialized into a “culture of nurse-to-nurse abuse” (Farrell, 2001, p. 28). This

helps to prolong the social and cultural structures that preserve this type of harmful action. Nursing is more female than male, and this facilitates the continuation of oppression by the male-dominated medial culture. This abuse of power is disempowering for all those targeted by abuse (Freshwater, 2000).

It is important to keep in mind that nursing culture functions within many different organizational cultures (Halford & Leonard, 2003). They are expected to become the agent of change within these organizations. This can be a daunting experience, especially for a new graduate. The nursing unit of a hospital is often the stage where nursing culture is communicated. As nurses continue to move to community and rural settings, the studied, efficient practices that serve so well in the hospital are replaced with thoughtful listening and communication techniques that require more time and intervention on the part of the nurse. This is a definite change from nursing culture exhibited in hospitals and yet is all a part of the overarching nursing culture. The culture of an organization may be altered and managed with the goal of achieving greater effectiveness (Beil-Hildebrand, 2002). Nurses can learn to recognize cultural cues and use them to help construct the kind of organizational culture in which the nursing culture can flourish.

In the last few years, health care has placed a greater emphasis on community health care (Kaminski, 2006). More and more people are opting to seek health care in community clinics, through special programs, or in their own homes. This means that nursing care is being carried into the community more and more. These communities are both urban and rural. When nursing care is brought to the community, it involves a more holistic approach than the time-line-driven care seen in hospitals.

Nursing culture functions in many diverse areas where there are the competing cultures of organization: health care itself, the community, and finally the world (Kaminski, 2006). Because of this, nursing culture is in constant flux, changing in many different areas of nursing all over the world. This leads to the view of culture that Carrithers (1992) espouses, one in which culture is never the same from minute to minute, place to place.

Caring has become a major focus within nursing (Mendyka, 2000). Problems in nursing culture may occur partly because of differing interpretations of culture and context. It is vital that the nurse care for the “whole” person and not just an illness or problem. To do this expertly, the nurse should examine the cultural experiences of the patient. The patient must be treated as a unique individual. There needs to be respect for the experiences and cultures of others as well as a realization that these shape the person and his or her perception of health and illness. A patient’s cultural identity is of utmost importance when planning nursing care.

According to Carrithers (1992), culture is characterized as an evolving concept. Culture is never static but is dynamic and ever-changing. To describe a culture at any point in time gives a picture of that time only. The past and the future of the culture will be different. Carrithers (1992) describes a man in an ethnographic study of American Indians in northern California. This man has embraced Christianity and an agricultural lifestyle. He

reminisces about a past time when the tribe's Shaman could turn into an animal. There is a sense of loss portrayed in the story; however, the culture is not lost but has evolved into a different time with different societal aspirations. The emphasis here is that all cultures change over time. Part of this is due to the "plasticity" (Carrithers, 1992, p. 34) of humankind.

Carrithers (1992) illuminates many different ethnographic studies by using the stories they tell to depict the huge variety in cultures around the world. Humans are an extremely social species. He writes of sociality, which he describes using a list of qualities: "group size, cohesiveness, compartmentalization, differentiation of roles, demographic distribution, and so forth" (p. 38). He attributes sociality partly to inheritance and defines it as a capacity or a potential. The inherited portion gives a person the potential to adapt to the various forms of culture that can be found.

Carrithers (1992) states that human thought is very powerful; there is a creativity component to human thought that makes it special. He indicates that the use of story telling is one way, a powerful way, to impart understanding of different cultures to people from other cultures. In fact, he uses these stories quite effectively throughout the text to make his points become more real to the reader. To illustrate the power of human thought, he makes the statement, "people are not only capable of tracking a complex flow of action, but also of responding appropriately within such a flow" (Carrithers, 1992, p. 177-178).

Culley (1996) warns that the multicultural view may become grossly oversimplified and may create harmful stereotypes. It is important to remember that ethnic groups are divided by gender and socioeconomic status in addition to being separated by culture. Cultural differences can and do create problems with effective communication. Culley warns that in attempting to eradicate individual prejudice, racism that is embedded into institutions is often overlooked or ignored. Further, prejudiced people may be ambiguous and may not be consistent in their behaviors. In addition, does teaching cultural understanding actually reduce prejudice? The question remains unanswered. Although cultural understanding is important, it needs to be taught in a way that promotes the interests of the minority groups and does not detract from them.

Nurse educators need to remember that discrimination exists on several levels (Pincus, 2000). Individual discrimination occurs when an individual's behavior is intended to cause harm or discomfort to a member of another race or culture. This type of discrimination may be corrected when working with and teaching individual students. Institutional discrimination occurs when the people running the institution set the policies for the institution, and the policies are intended to cause harm to persons from minority cultures. This type of discrimination is much more difficult to eradicate than individual discrimination. The last type of discrimination is structural. This type of discrimination is race- and gender-neutral. It occurs when the existing standards and behaviors, which are not intended to cause harm, in fact do differentiate and cause unintended harm. This is the most insidious and the most difficult type of discrimination to correct.

Frels et al. (1997) developed a model curriculum that identified the similarities and differences between American and Mexican nurse anesthetist educational programs. The authors state, “We live in a global society which means that professionals need to be knowledgeable about diverse cultural and sub-cultural practices of multiple societies” (1997, p. 340). Cultural competence must combine cultural sensitivity and an awareness that leads to appropriate behaviors and actions (Phillips & Weekes, 2002).

The National Review of Nursing Education (2001) lists several models for teaching cultural competence. The first includes awareness/exposure, knowledge/participation, understanding/identification, sensitivity/internalization, and competence/dissemination of cultural diversity. The second model contains seven steps: 1) knowledge about your own culture, 2) knowledge about other peoples’ cultures, 3) nonthreatening situations, 4) tolerance, 5) inclusion, 6) appreciation and acceptance, and 7) competence. Both of these models are based on Leininger’s theory of culture care diversity and universality. The limitations for both are that the term cultural competence is sometimes simply spoken and not acted upon, cultural competence tends to focus on outcomes that the patient has not participated in developing, and they center on performance and not on the person.

Cultural competence is an ever-changing, dynamic process that involves individuals’ ability to be aware of their own values and beliefs as well as those of others (MacAvoy & Lippman, 2001). It also must include the ability to comprehend how cultural differences may impact their responses to persons from cultures other than their own.

According to Culley (1996), nurse educators need to assist students in identifying ways they can effectively learn to listen to and communicate with minority persons and communities. Physiological differences occur across race and culture (Frels et al., 1997). Psychological and spiritual differences may also be present. These are important implications that affect nursing care directly. The demographics of the United States are changing (Phillips & Weekes, 2002). This change includes greater numbers of diverse cultures within the population. The challenge for nursing education is to develop cultural competence in nursing students (Gerrish, 2004). This will allow nurses to work across international borders and within borders in more culturally congruent ways.

Canales and Bowers (2001) state that nursing faculty should routinely expect cultural competence when evaluating the care that students provide for patients. Cultural competence should not be a separate issue but a general requirement in nursing programs. A major focus for nurse educators must be assisting students to “connect” with people different from themselves. Diversity is the reality of today’s society (MacAvoy & Lippman, 2001). Nurse educators must incorporate cultural competence as a crucial component in nursing curricula. More and more immigrants to the United States are choosing to retain their languages, cultures, and ethnic identity (Martino, 2005). In order to meet the needs of these communities, nurses must learn the skills and knowledge that are appropriate to care for people from different cultures.

Educating nurses in “disciplinary isolation” is detrimental to nursing students (Allen, 2006). A need exists to examine the curricula and language used when teaching nursing

in order to attempt to eliminate as much bias and prejudice as possible. However, eliminating the bias and prejudice students have learned in previous educational settings is not possible. Hassounh (2006) reminds us that antiracial teaching continues to be important in nursing education.

The provider of culture as presented by the TCN (2005b) emphasizes the disparity of socioeconomic status between the health care provider and the recipient of care. This is a strong reminder to include culturally competent care. Nurses need to utilize a variety of approaches that take the patient's culture, health status, gender, socioeconomic status, values, and beliefs into consideration when planning and providing patient care.

Nursing faculty members are adamantly urged to strengthen their efforts to integrate cultural diversity through content and exposure in nursing curricula (Underwood, 2006). Cultural competence is more than a concept. It is a necessity. Newcomb et al. (2006) counsel nurse educators and employers that new nursing graduates are not fully prepared to provide culturally competent care immediately upon graduation. They will develop these skills through practice.

Hilgenberg and Schlickau (2002) warn that progress toward teaching cultural competence has been slow. The increasingly diverse population has made finding a way to teach nursing students the knowledge and skills necessary to provide culturally competent care an even greater concern for nursing programs. Campinha-Bacote (2006) writes that nursing is progressing toward being able to effectively teach cultural competence. This is an ongoing and transforming process. As Campinha-Bacote states, "Let the journey continue" (2006, p. 244).

Kaminski (2006) states that the "culture of nursing can be compared to a kaleidoscope, a multifaceted lens that creates a unique image based on the interplay of illumination, reflection, and patterns" (p. 3). There is no easy way to teach health care and nursing students about the culture of nursing or how to develop cultural competence within their practices. Much of this is learned through observation of instructors, licensed nurses, and other health care providers. No matter how hard we try, we can not eliminate racism or prejudice from our world. We can, as nursing instructors, seek knowledge about the cultures of others, expose our students to as many other cultures as possible, and learn to rejoice in cultural diversity. This then becomes a beacon of "light and knowledge" that we can pass on to those we interact with and teach.

References

- Agar, M. (1994). *Language shock: Understanding the culture of conversation*. New York: HarperCollins.
- Allen, D. G. (2006). Whiteness and difference in nursing. *Nursing Philosophy*, 7, 65-78.
- Anderson, K. L. (2004). Teaching cultural competence using an exemplar from literary journalism. *Journal of Nursing Education*, 43(6), 253-259.

- Beil-Hildebrand, M. B. (2002). Theorising culture and culture in context: institutional excellence and control. *Nursing Inquiry*, 9(4), 257-274.
- Benner, P. (2001). Uncovering the knowledge embedded in clinical nursing practice. In A. M. Rafferty (Ed.), *Exemplary research for nursing and midwifery* (pp. 147-152). New York: Routledge.
- Bindler, R., Allen, C., & Paul, R. (2004). Native American learning: An integrative model. *Journal of Nursing Education*, 43(5), 237-240.
- Boyer, J. B., & Baptiste, H. P., Jr. (1996a). Baptiste's typology of multiculturalism. In *Transforming the curriculum for multicultural understanding: A practitioner's handbook* (pp. 97-127). San Francisco: Caddo Gap Press.
- Boyer, J. B., & Baptiste, H. P., Jr. (1996b). Boyer's stages of ethnic growth. In *Transforming the curriculum for multicultural understanding: A practitioner's handbook* (pp. 47-63). San Francisco: Caddo Gap Press.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage Publications.
- Campinha-Bacote, J. (2006). Cultural competence in nursing curricula: How are we doing 20 years later? *Journal of Nursing Education*, 45(7), 243-244.
- Campinha-Bacote, J. (2007). *A culturally consciously model of care*. Retrieved April 7, 2007, from http://www.transculturalcare.net/Cultural_Competence_Model.htm
- Canales, M. K., & Bowers, B. J. (2001). Expanding conceptualizations of culturally competent care. *Journal of Advanced Nursing*, 36(1), 102-111.
- Carrithers, M. (1992). *Why humans have cultures: Explaining anthropology and social diversity*. New York: Oxford University Press.
- Chapman, L. (2002). A cultural revolution? *Primary Health Care*, 12(7), 14-15.
- Culley, L. (1996). A critique of multiculturalism in healthcare: The challenge for nurse education. *Journal of Advanced Nursing*, 23, 564-570.
- DeSantis, L. A., & Lipson, J. G. (2007). Brief history of inclusion of content on culture in nursing [Supplement]. *Journal of Transcultural Nursing*, 18(7), 7S.
- Farrell, G. A. (2001). From tall poppies to squashed weeds: Why don't nurses pull together. *Journal of Advanced Nursing*, 35(1), 26-33.
- Frels, L., Scott, J., & Schramm, M. A. (1997). A process: Development of a model multiculturalism curriculum designed for mobility across geographic borders. *Journal of the American Association of Nurse Anesthetists*, 65(4), 339-345.
- Freshwater, D. (2000). Crosscurrents: Against cultural narration in nursing. *Journal of Advanced Nursing*, 32(2), 481-484.
- Fuehn, A. F. (2005). Exploring nursing roles across North American borders. *Journal of Continuing Education in Nursing*, 36(4), 153-162.
- Furness, S. (2005). Shifting sands: Developing cultural competence. *Practice*, 17(4), 247-256.
- Gallagher, C. (1999). *Lev Semyonovich Vygotsky*. Retrieved November 20, 2007, from <http://www.muskingum.edu/~psych/psycweb/history/vygotsky.htm>
- Gerrish, K. (2004). The globalization of the nursing workforce: Implications for education. *International Nursing Review*, 51, 65-66.
- Halford, S., & Leonard, P. (2003). Space and place in the construction and performance of gendered nursing identities. *Journal of Advanced Nursing*, 42(2), 201-208.

- Hassouneh, D. (2006). Anti-racist pedagogy: Challenges faced by faculty of color in predominantly white schools of nursing. *Journal of Nursing Education*, 45(7), 255-262.
- Hilgenberg, C., & Schlickau, J. (2002). Building transcultural knowledge through intercollegiate collaboration. *Journal of Transcultural Nursing*, 13(3), 241-247.
- Hoffmann, R. L., Messmer, P. R., Hill-Rodriguez, D. L., & Vazquez, D. (2005). A collaborative approach to expand clinical experiences and cultural awareness among undergraduate nursing students. *Journal of Professional Nursing*, 21(4), 240-243.
- Holland, C. K. (1993). An ethnographic study of nursing culture as an exploration for determining the existence of a system of ritual. *Journal of Advanced Nursing*, 18, 1461-1470.
- Holland, C. K. (1999). A journey to becoming: The student nurse in transition. *Journal of Advanced Nursing*, 29(1), 229-236.
- Holmes, D., & Gastaldo, D. (2002). Nursing as means of governmentality. *Journal of Advanced Nursing*, 38(6), 557-565.
- Holmes, D., & Gastaldo, D. (2004). Rhizomatic thought in nursing: An alternative path for the development of the discipline. *Nursing Philosophy*, 5, 258-267.
- Huntington, A. D., & Gilmour, J. A. (2001). Re-thinking representations, re-writing nursing texts: possibilities through feminist and Foucauldian thought. *Journal of Advanced Nursing*, 35(6), 902-908.
- Institute of Medicine. (2005). *Quality through collaboration: The future of rural health*. Washington, DC: The National Academies Press.
- Kaminski, J. (2006). *Nursing through the lens of culture: A multiple gaze* (Student number 68887801). Vancouver: University of British Columbia.
- Kaminski, J. (2005). Nursing informatics and nursing culture. Is there a fit? *Online Journal of Nursing Informatics*, 9(3). Retrieved November 11, 2007, from http://eaa-knowledge.com/ojni/ni/9_3/june.htm
- Kristendotter, S. B. (2007). *Lev Vygotsky*. Retrieved on November 20, 2007 from <http://starsfolk.khi.is/solrunb/vygotsky.htm>
- Leininger, M. (1994). The tribes of nursing in the USA culture of nursing. *Journal of Transcultural Nursing*, 6(1), 18-22.
- Leininger, M. (2002) *Leininger's sunrise enabler for the theory of cultural care diversity and universality*. Retrieved April 7, 2007, from <http://www.tcns.org/society/sunrise%20new.ppt#257,1,slide1>
- Leishman, J. L. (2006). Culturally sensitive mental health care: A module for 21st century education and practice. *The International Journal of Psychiatric Nursing Research*, 11(3), 1310-1321.
- Little, M. (2006). Preparing nursing students to be health educators: Personal knowing through performance and feedback workshops. *Journal of Nursing Education*, 45(3), 131-135.
- Leontiev, A. A. (2006). Personality, culture, language. *Journal of Russian and East European Psychology*, 44(3), 47-56.
- Lin, L. (2006). Cultural dimensions of authenticity in teaching. *New Directions for Adult and Continuing Education*, 111, 63-72.

- Lindholm, L., & Eriksson, K. (1993). To understand and alleviate suffering in a caring culture. *Journal of Advanced Nursing*, *18*, 1354-1361.
- Lipson, J. G., & DeSantis, L. A. (2007). Current approaches to integrating elements of cultural competence in nursing education. *Journal of Transcultural Nursing*, *18*(Suppl. 1), 10S.
- Locsin, R. C. (2002). Culture of nursing, preoccupation with prediction, and nursing intention. *Holistic Nursing Practice*, *16*(4), 1-3.
- MacAvoy, S., & Lippman, D. T. (2001). Teaching culturally competent care: Nursing students experience rural Appalachia. *Journal of Transcultural Nursing*, *12*, 221-227.
- Marks, B. (2007). Cultural competence revisited: Nursing students with disabilities. *Journal of Nursing Education*, *46*(2), 70-74.
- Martino, C. D. (2005). Registered nurses' personal rights vs. professional responsibility in caring for members of underserved and disenfranchised populations. *Journal of Clinical Nursing*, *14*, 546-554.
- Mendyka, B. E. (2000). Exploring culture in nursing: A theory-driven practice. *Holistic Nursing Practice*, *15*(1), 32-41.
- Merriam Webster Online Dictionary. (2007). Retrieved November 20, 2007, from <http://www.m-w.com/dictionary/rural>
- National Review of Nursing Education. (2001). *Multicultural nursing education*. Retrieved January 8, 2008, from http://www.dest.gov.au/archive/highered/nursing/pubs/multi_cultural/5.htm
- Newcomb, P., Cagle, C., & Walker, C. (2006). Using imaginative literature to foster cultural sensitivity. *International Journal of Nursing Education Scholarship*, *3*(1), 1-17.
- Office of Minority Health. (2001). *National standards for culturally and linguistically appropriate services in health care*. Retrieved April 7, 2007, from <http://www.omhrc.gov/assets/pdf/checked/executive.pdf>
- Phillips, J., & Weekes, D. (2002). Incorporating multiculturalism into oncology nursing research: The last decade. *Oncology Nursing Forum*, *39*(5), 807-812.
- Pincus, F. L. (2000) Discrimination comes in many forms: Individual, institutional, and structural. In M. Adams, W. J. Blumenfeld, R. Castaneda, H. W. Hackman, M. L. Peters, & X. Zuniga, (Eds.), *Readings for diversity and social justice: An anthology on racism, antisemitism, sexism, heterosexism, ableism, and classism*. (pp. 31-35). New York: Routledge.
- Puzan, E. (2003). The unbearable whiteness of being (in nursing). *Nursing Inquiry*, *10*(3), 193-200.
- Sims-Giddens, S. (2002). Graduation and success rates of Mexican-American undergraduate nursing students in an associate degree nursing program. In *An imperfect world: Resonance from the nation's violence*. Houston, TX: 2002 Monograph Series.
- Suominen, T., Kovasin, M., & Ketola, O. (1997). Nursing culture - Some viewpoints. *Journal of Advanced Nursing*, *25*, 186-190.
- Transcultural Nursing Society. (2005a). *Cultural competence*. Retrieved April 4, 2007, from <http://www.culturediversity.org/cultcomp.htm>

- Transcultural Nursing Society. (2005b). *The provider culture*. Retrieved April 4, 2007, from <http://www.culturediversity.org/provc.htm>
- Transcultural Nursing Society. (2007). *Home page*. Retrieved on April 4, 2007, from <http://www.tcns.org/>
- Underwood, S. M. (2006). Culture, diversity, and health: Responding to the queries of inquisitive minds. *Journal of Nursing Education, 45*(7), 281-286.
- Wieland, D. M., & Hoerst, B. J. (2006). Increasing the diversity of nursing students for future improved national health outcomes and reducing health disparities: One nursing program's efforts to meet goals of the Sullivan commission report. *The Pennsylvania Nurse, 16-17*.
- Weinert, C., & Burman, M. E. (1999). The sampler quilt: A metaphor of rural communities. In A. S. Hinhaw, S. L. Feetham, & J. L. F. Shaver (Eds.), *Handbook of clinical nursing research* (pp 75-86). Thousand Oaks, CA: Sage.

3 Building Relationships of Trust in Rural and Diverse Communities

Karen Lottis, RN, APRN-BC, MSN

...for one brave second we will stare openly from borderless skins. This is my salary. There are no days off.

Naomi Shihab Nye

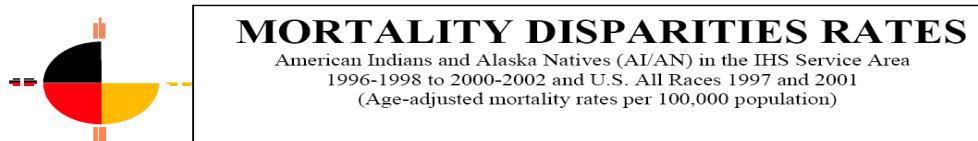
In the setting of a health care personnel shortage (U.S. Department of Health and Human Services [USDHHS], 2007), and with challenges in recruiting long-term providers into remote rural areas, many communities face a “revolving door” style of approach. For instance, in New Mexico, 32 of 33 counties qualify as medically underserved areas, (USDHHS). With limited access to resources, including high-quality education for their family members, providers are reluctant to stay long term. This continual demand to acclimate to new practitioners adds a level of stress, and for rural minority groups with a history of oppression, this stress may be greater yet. High turnover, paucity of providers, and marginalized communities all are potential components leading to ambivalence, if not outright distrust, of the provider and/or the health care system at large (Lauder, Reel, Farmer, & Griggs, 2006; Lewicki, McAllister & Bies, 1998; Vasas, 2005).

Little research has been done on minority populations and rurality. However, what is known is the increased mortality rate among rural minorities in the United States, which is associated with inequitable distribution of resources (Falk-Rafael, 2005), and higher poverty rates, which are a documented reality of most rurally situated groups (Bushy, 2000; Weinert, 2002). When combined with the higher mortality rate in minority populations in general, there is great concern for the adequacy of available health care in these rural communities. Coburn (2004) claims that not only income inequality but “social hierarchies are said to produce disease because of the poor self-esteem associated with lower status which, in turn, through psycho-neuro-biological pathways, negatively influences health” (p. 42).

Indian Health Services ([IHS], 2006) provides primarily rural health care to American Indians and Alaska Natives (Appendix A). The mortality rates among this population are staggering compared with other races, particularly for death from diabetes and tuberculosis, infant/maternal deaths, alcohol-related deaths, homicide, and other accidental deaths (Table 1). According to Phillips & Grady (2002), the mortality rate due to cardiovascular disease for non-Hispanic Blacks is 40% higher than for non-Hispanic Whites. Mortality from diabetes increased 10% in non-Hispanic Blacks (up from 19% to

29%) in 1998. Coburn (2004) states that “mortality would be reduced by 139.8 deaths per 100,000 if the socioeconomic status differences noted were eliminated” (p. 48). What these statistics do not reveal, and which is of great concern, is the morbidity and impact on daily life associated with this level of mortality.

Table 1
Mortality Disparities Rates



	AI/AN Rate 2000-2002	U.S. All Races Rate – 2001	Ratio: AI/AN to U.S. All Races	AI/AN Rate 1996-1998	U.S. All Races Rates -1997	Ratio: AI/AN to U.S. All Races
ALL CAUSES	1039.9	854.5	1.2	1070.8	888.5	1.2
Alcohol induced	42.1	6.9	6.1	45.0	7.3	6.2
Breast Cancer	16.5	26.0	0.6	19.8	28.9	0.7
Cerebrovascular	59.9	57.9	1.0	62.8	65.6	1.0
Cervical Cancer	4.5	1.4	3.2	5.2	3.2	1.6
Diabetes	73.2	25.3	2.9	77.8	24.2	3.2
Heart Disease	236.2	247.8	1.0	272.4	278.1	1.0
HIV Infection	2.9	5.0	0.6	3.3	6.5	0.5
Homicide (assault)	11.4	7.1	1.6	12.9	7.3	1.8
Infant Deaths ¹	8.5	6.8	1.3	8.9	7.2	1.2
Malignant Neoplasm	183.5	196.0	0.9	187.5	207.9	0.9
Maternal Deaths	12.5	9.9	1.3	7.8	8.4	0.9
Motor Vehicle Crashes	50.4	15.3	3.3	43.1	13.9	3.1
Pneumonia/Influenza	31.1	22.0	1.4	31.3	23.5	1.3
Suicide	17.3	10.7	1.6	18.0	11.4	1.6
Tuberculosis	2.1	0.3	7.0	2.0	0.4	5.0
Unintentional Injuries	90.1	35.7	2.5	98.7	37.3	2.6

¹ Infant deaths per 1,000 live births.
NOTE: Rates are adjusted to compensate for misreporting of American Indian and Alaska Native race on state death certificates. American Indian and Alaska Native death rate columns present data for the 3-year period specified. U.S. All Races columns present data for a one-year period. ICD-10 codes were introduced in 1999; therefore, comparability ratios were applied to deaths for years 1996-1998. Rates are based on American Indian and Alaska Native alone; 2000 census with bridged-race categories.

Source: Indian Health Service (2006).

January 2006

A number of organizations are currently working on disparities in health care, including the National Center of Minority Health and Health Disparities (n.d.), the Office of Minority Health (n.d.), and the National Rural Health Association (n.d.); nonetheless, vast issues remain. Prominent in these challenges is the inability to generalize between communities. According to Fiscella (2003), a major problem exists because “quality measures applied to the general population will ‘hide’ or mask deficiencies in quality

provided to members of vulnerable groups or disparity populations” (p. 20). These vulnerable groups each hold unique geographic and historic elements that require sensitively crafted interventions. It is through being present in these communities that accurate data can be generated. Responsibility not only for understanding the inherent health and social inequities, but for providing a voice for these people falls to the health care providers, rural hospitals, and clinics.

To maximize effective care, health care practitioners new to rural communities must quickly forge viable relationships. The dynamics of these interactions will be multifaceted and involve the past experiences by community members as well as providers. Building new relationships in the face of ambiguity, distrust, and potential anger associated with historical oppression requires high levels of social and cultural fluidity—typically not something taught in academic settings.

Defining the Concepts

Rurality

Rurality is a concept that causes great debate and, as of yet, there is no consensus on a definition. Various federal agencies maintain differing opinions, primarily based on population density, and several use a continuum between urban and frontier (Bushy, 2000). These definitions do not adequately capture the experiential reality of those who live a rural existence, particularly those with little to no choice in their residence. Combined with underlying poverty, individuals may be prevented or severely hindered by transportation options to healthcare access points, sometimes many hours distant. While a universal definition may not be possible, it remains imperative to define rurality for use in research. For the purposes of this chapter, the following definition of rurality will be used: the isolation of an individual or community geographically and politically, with limited access to resources including health care without personal hardship through time/travel/finances; a framework of hardiness/independence which acknowledges importance of community and family for survival.

Culture

Over the decades, the definition of culture has outgrown itself. Early anthropologists placed it into a geographically contained ethnicity, which included learned behavior, spirituality, and sociopolitical structures, yet scientists within and among anthropology, ethnology, and sociology debate the limitations of this definition (Van Maanen, 1988). Globalization, transnational immigration, politics, and panethnicity create havoc in the face of a simple definition of culture (Lee, Rosenfeld, Mendenhall, Rivers, & Tynes, 2004). Kleiman (2006) views culture as self-interpretation of one’s life-world in the setting of lived experience, which is dynamic in nature.

Apparent from the plethora of articles and texts on the subject is the changing nature of culture, and indeed the fact that any individual might act within multiple cultures, just as individuals hold multiple identities (Sen, 2001). Given pluralistic cultural identities, the

definition must be embedded within the context of individual studies and will be unlikely to offer generalizability beyond those boundaries. That stated, a working definition of culture is: the shared behaviors and mindset learned and embodied through any combination of ethnic, social, political, spiritual, philosophic, health, geographic and/or institutional ‘norms’. Highly fluid and multiplicitous, elements will shift for individuals and communities as roles and circumstances change.

Peripheral Cultures

As defined, individuals live simultaneously multiple cultural existences, which are framed by past, present, and perhaps future expectations. Whenever an individual or community primarily identifies with a minority culture, there is a potential for relationship disconnect with the health care provider, particularly if the provider identifies with mainstream culture.

Tashiro (2005) discusses the “invisibility of whiteness” (p. 206) and the prominent, albeit artificial, claim that race exists primarily for those who are non-White. This ideology of Whiteness perpetuates an invisible circle of power, creating a dynamic of those within and outside of the mainstream. Those who exist outside of the circle are traditionally ethnic or spiritual minorities who have undergone historical (or current) oppression and marginalization. These groups might be thought of in this context as “peripheral” cultures. To be heard, these voices from the periphery of central power are forced to speak louder, more articulately, more creatively, or perhaps more violently for simple recognition of the issues faced. Yet, for a multitude of reasons, their voices and needs may go unheard and unrecognized. For many, a learned helplessness and powerlessness ensues. As Vasas (2005) states, “Marginalization thus creates vulnerable populations” (p. 194). Issues around trust will be challenging to health care providers, particularly those who might be considered culturally mainstream. Effective care demands development of trusting relationships, which may place a burden on social skills and acumen not previously required.

Relationships—Developing Trust Through Intentional Presence

For many minority groups living in rural areas, it is important to acknowledge the marginalization they experience. Trust for outsiders may be given grudgingly, if at all, and stepping stones to earn that trust will need to be put into play. Gleuckauf et al. (2005) found that rural participants’ skepticism and mistrust of provider intentions complicated efforts at high-quality care. Bova, Fennie, Watrous, Dieckhaus, & Williams (2006) discussed the lack of research on trust in minority groups. Nonetheless, there are multiple articles and studies that reinforce trust as a key component in relationship-building within any interaction (Addis & Gamble, 2004; Belknap & Sayeed, 2003; Bova et al., 2006; Dirks & Ferrin, 2001; Canning, Rosenberg & Yates, 2007).

Lewicki et al. (1998) defined trust as an “individual’s confidence in the intentions and capability of a relationship partner and the belief that a relationship partner would behave as hoped” (p. 439). They defined distrust as a confidence in undesirable behavior. These

authors asserted that both trust and distrust are behavioral in nature and that “distrust and trust relations are embedded and entrenched within systems of social relations” (p. 451).

Exploration of the tension surrounding these concepts demands recognition of the varying levels of trust in differing contexts within the same relationship. Lewicki et al. (1998) argued that trust and distrust coexist and are functional attributes that create breadth and richness in relationships. There may be trust between individuals within a business or medical framework, but not personally or socially. Inherent in this approach is the multicontextual nature of all relationships and the fluidity and changing nature of personal interactions. Equally important in this context is the willingness to engage with another person, despite uncertainty—in fact, because of uncertainty.

Engagement in a trusting relationship is reciprocal in nature and requires that each party be willing to relinquish elements of personal control (Tanis & Postmes, 2005). Expectations of another’s purposes, no matter whether accurate or not, play into what these authors call “perceived trustworthiness” (p. 413). The differences between perceived trust and behavioral trust are subtle, yet substantial, with the former being passive and the latter action-based, with reciprocity as the determining factor (Lewicki et al., 1998; Tanis & Postmes, 2005).

Tanis & Postmes (2005) found trust to be mediated by two pathways, group membership versus personal identity. Membership within a salient group results in a higher level of perceived trust unless either individuation occurred or personal cues were given. These authors showed that “cues to personal identity increase perceived trustworthiness” (p. 415), even when participants were from separate groups. When personal cues were not available, individuals reverted to trust of the group membership as primary. This is a highly significant finding when working with traditionally oppressed groups, where group membership through shared history may well be quite high and perceived trust of any outsiders quite low. If the provider acts from a paternalistic framework or is unwilling to offer genuine personal cues or engagement, the reciprocity of a trusting relationship may not be attainable.

In many health care settings, the personnel shortage makes huge demands on a caregiver’s time. With limited time per patient, slipping into a brief directed “question, answer, and dispense (either medications or advice)” mode is consistent behavior with the majority of health care provider training programs and models. Yet, Belknap & Sayeed (2003) asked Mexican American women what gave them confidence to talk to a provider. The themes of presence, taking time to listen, and showing an interest in the client’s life emerged as instrumental in creating an atmosphere of trust and engagement. These themes are consistent with a reciprocal relationship between patient and provider. The reality of these women’s lives would not have been uncovered in a traditionally oriented interview, which would have prevented adequate care from being offered. The element of time within the context of intentional listening is primary at the outset of a relationship, and research is required to determine whether this additional time expenditure would yield a cost-effective increase in quality care over the long term.

Relationships—Elements of Interaction

Essential in any relationship-building is to recognize the sacred and profoundly private nature of the cultural identity of a community (Holkup, Tripp-Reimer, Salois, & Weinert, 2004). Without a clear sense of the history, both geographically and culturally, people new to the area will not understand areas of particular sensitivity and how best to approach relationship-building. Providers new to the area must be culturally competent, which, according to Kleiman (2006), is an integration of both cultural awareness and sensitivity.

In previous decades, as the importance of interacting within culturally diverse situations became apparent, authors spoke to the importance of learning details of specific cultural behaviors and ethnic data sets (Abbott et al, 2002; Rapp, 2006; Straker & LeLacheur, 2007). Understanding cultural foundations and history are of great importance, yet one cannot rely simply on a “cultural cookbook” per se, which will only provide limited information and run the risk of stereotyping an individual. Rather, key to this approach is the interactive and dialogic exchange between players.

Kleiman (2006) offered personal procedural steps for the culturally competent provider, including “(1) an epiphany or experiential awakening, (2) self-understanding, (3) dialogic openness, and (4) inter-subjective dialogues” (p. 84-85). These building blocks each speak to the reciprocal exchange between provider, patient, and community, and initially require a great deal of personal work on the part of the provider. The first two steps of experiential awakening and self-understanding hopefully will have occurred long before undergraduate education begins. However, it falls on nursing, medical, and other provider programs to ensure that opportunities for this growth occur and, further, to model the last two steps or techniques—open and inter-subjective dialogue.

The Consultation and Relational Empathy (CARE) measure was created to assist health care providers in assessing the level of therapeutic relationship appreciated with their patients (Appendix B). This scale offers a window into reciprocal relationship perceptions by patients, and potentially, information for the provider on framing future interactions. It is strongly suggested that a scale such as this be used, either formally or informally, in order to fine-tune patient-provider interactions.

Reciprocal connecting has been touted as a component of nursing education (McGregor, 2005), but needs to be recognized as an essential component of provider-client relationships as well. Reciprocity implies an exchange of value, and is highly present and intentional. Although participants may come from diametrically opposed viewpoints, each comes from a place of openness to explore if not engage. For providers, someone simply entering into care, whether in the hospital, clinic, or home care setting, implies a certain level of willingness. The next step must always be the responsibility of the provider in offering personal cues or intentional presence that signifies to the patient that it is safe to take the next step.

Through this reciprocal relationship, a climate of trust can thus be created. Bova et al. (2006) noted that recognition of a patient's inherent strengths and abilities will foster trust. Interestingly, although not surprising, the foundational components of trust are consistent with the techniques used by a culturally competent provider. Bova et al. established six components of collaborative trust: "(1) knowledge sharing, (2) emotional connection, (3) professional connection, (4) respect, (5) honesty, and (6) partnership" (p. 482). The findings by these authors suggested that it is possible, even in vulnerable populations, to obtain a high level of trust when relationship-building is attended to.

Development of trust demands engagement with another, potentially outside of one's comfort zone, and this requires social intelligence or capacity. Stichler (2007) lists social intelligence as a component of emotional intelligence and considers it an "art" of social competency. In the global, diversified world in which we live, social intelligence is intimately linked with cultural competency. There are many components to emotional and social intelligence, but the most important criterion is that of listening with intention. Before listening with intent, however, one must be willing to ask—despite the potential discomfort the answers may cause.

To reiterate, relinquishing personal control in a health care interaction will go a long way toward building a trusting relationship. This does not imply that a health care provider should not offer appropriate care or advice, simply that a plan must be negotiated from a menu of alternatives. Indeed, in acute care situations, it is imperative that a provider act decisively and provide thorough information to help the patient and family understand the potential for adverse outcomes if treatment were delayed. However, increasing numbers of individuals are confronted with long-term health concerns and chronic disease, and behavioral modification techniques will be increasingly used in prevention and stabilization. It is no longer sufficient to focus on acute care and simply shrug collective shoulders when prescriptive regimens are met with noncompliance, particularly when recognition of the strengths and knowledge that a patient brings to the decision process may foster a higher level of ownership with the care plan.

A technique that has been used extensively in behavioral modifications dealing with substance abuse and physical exercise is motivational interviewing. This framework offers profound implications for interacting within health care settings of all specialties (Rollnick, Miller, & Butler, 2008). In a community where mistrust and ambivalence toward the health care system prevail, the provider may be up against significant patient resistance. Scales & Miller (2003) noted that motivational interviewing blends well in conjunction with change readiness theory and that those who were able to dialog about their change commitment were more compliant with change behaviors in the future. They also noted that "an empathic listening style encourages change talk, whereas a more directive confrontational tactic increases resistance" (p. 167). Motivational interviewing is characterized by an interactive, positive approach, which includes empathic listening and collaboration, and negotiates a menu of alternatives based on the patient's stage of readiness. The ultimate choice and responsibility for behavioral change is left in the hands of the patient and is only facilitated by the provider (Rollnick et al., 2008; Scales & Miller, 2003).

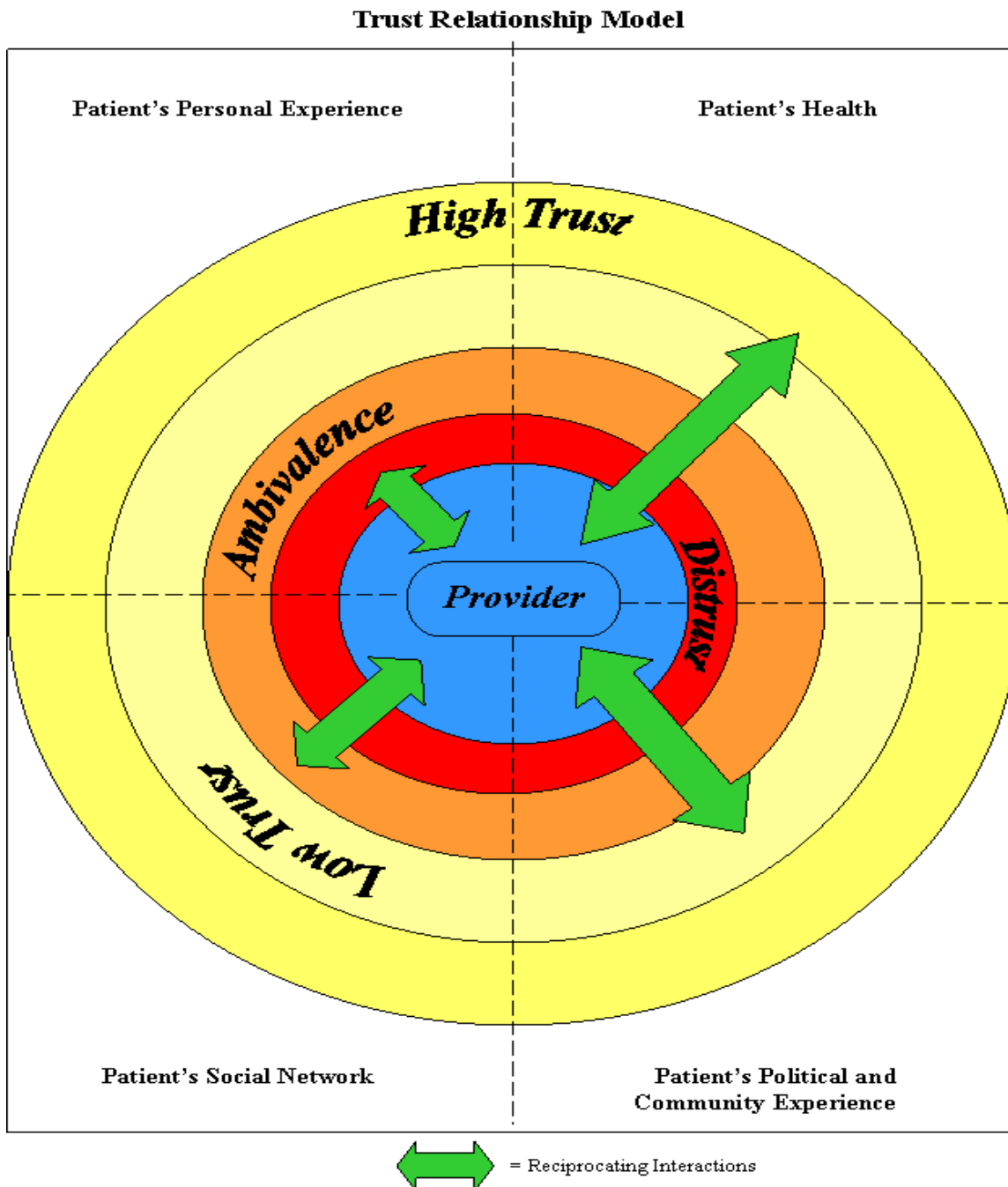


Figure 1. Trust Relationship Model. (Figure by Karen Lottis.)

This style of individual and community interaction is consistent with what Vasas (2005) terms “horizontal power” (p. 198), which is based on a feminist foundation of intentional interactions and involvement (Borbasi, Jackson, & Wilkes, 2005). Although the prevalent Western, linear framework of power is vertically aligned, for instance, Chief Executive Officer at the top, employees at the bottom, with management at varying levels along the pole, the horizontal power model recognizes diversity as a strength and seeks to minimize power differentials. Interacting from a horizontal power framework requires a shift in

perspective and entering into conversations from a place of respect and openness. Vasas noted the importance of not only the spoken word but also tone and body language as important elements of building healthy reciprocal relationships. Horizontal power “values commonalities and the creation of human bonds” (Vasas, p. 197), and engages individuals and communities within their own process.

Horizontal power as a mechanism of relating embeds the provider contextually within the community and provides paths of interaction not otherwise appreciated. Experientially active within the life world of the patient and community, the provider becomes the “human professional confluence” (Addis & Gamble, 2004, p. 456). This embeddedness is a central feature of the effective health care provider in rural nursing, in both formal and informal community networks (Lauder et al., 2006), and it is through these mechanisms that trust will grow and relationships will deepen. Lauder et al. believe these processes add to social capital and that reciprocally, social capital affects the way health care is perceived in the community. With higher social capital and the development of trusting relationships, it is thought that retention of health care personnel in rural areas will increase and the cost of transactions will decrease (Lauder et al., 2006).

Determination of the most effective techniques for specific communities requires research and an attitude of curiosity. Evaluation of a community’s social capital will provide information at multiple levels. However, it is important to engage the community members in this assessment, rather than simply gauge the surface from the viewpoint of an outsider. Another method to develop and explore social capital is that of community-based participatory research (CBPR). Holkup et al. (2004) discussed some of the advantages of this framework; it (1) creatively adapts existing resources, (2) investigates perceptions and knowledge of community members, (3) empowers locals through self-investigation, (4) provides credibility through community alignment of perceived social and health goals, (5) integrates a wide variety of researchers, (6) provides resources, and perhaps most importantly, (7) builds trust across diverse elements of the community. This technique is one of many that involve community members, professionals, and researchers in such a way that win-win situations are created and community empowerment occurs (Chino & DeBruyn, 2006; Dyas, Moody, & Siriwardena, 2005).

In exploration of a technique such as CBPR and other empowerment models, the reader is brought full circle in that successful implementation of this research style will demand the same level of competence for the provider as discussed previously. Interaction in primarily minority communities will not be successful without culturally competent, socially intelligent interactions that are open and reciprocal in nature. The level of trust developed by the provider will be based on personal, professional, social, and political interactions (Figure 1), and will be fluid in nature.

As this model indicates by the extension of reciprocating relational interactions, movement is made toward higher levels of trust in each of these quadrants. It is hypothesized that as trust in each of these domains increases, so too will the quality of interaction with individuals increase. Research is required to determine the relationship between high levels of trust and resultant quality of health care, both perceived and realized.

Development of these trusting relationships on an individual basis will give the provider a level of respect within the community and thus greater access to CPBR and social capital building. Approached with wide community involvement, these empowerment techniques will only serve to improve the general health and resilience of the area.

The provision of high-quality health care is continually challenged, not only by personnel shortages but at numerous institutional levels that affect treatment plan options and delineate confining fiscal boundaries. The use of effective strategies for building provider-patient and community relationships can no longer be considered optional, but must be integrated into every interaction.

The unique and intimate positions with which health care providers practice allow for development of confidence and trusting relationships. As Holkup et al. (2004) offered, professionals must embrace a “participative reality” (p. 163) in a reciprocal fashion. This presents a clear burden of responsibility in terms of social activism and justice. It is time to organize and increase visibility and presence within community and political frameworks to further the well-being of those served.

References

- Abbott, P. D., Short, E., Dodson, S., Garcia, C., Perkins, J., & Wyant, S. (2002). Improving your cultural awareness with culture clues. *The Nurse Practitioner*, 27(2), 44-51.
- Addis, J. & Gamble, C. (2004). Assertive outreach nurses' experience of engagement. *Journal of Psychiatric and Mental Health Nursing*, 11, 452-460.
- Belknap, R. A., & Sayeed, P. (2003). Te contaria mi vida: I would tell you my life, if only you would ask. *Health Care for Women International*, 24, 723-737.
- Borbasi, S., Jackson, D., & Wilkes, L. (2005). Fieldwork in nursing research: Positionality, practicalities and predicaments. *Journal of Advanced Nursing*, 51(5), 493-501.
- Bova, C., Fennie, K. P., Watrous, E., Dieckhaus, K., & Williams, A.B. (2006). The health care relationship (HCR) trust scale: development and psychometric evaluation. *Research in Nursing & Health*, 29, 477-488.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage Publications.
- Canning, D., Rosenberg, J.P., & Yates, P. (2007). Therapeutic relationships in specialist palliative care nursing practice. *International Journal of Palliative Nursing*, 13(5), 222-229.
- Chino, M., & DeBruyn, L. (2006). Building true capacity: Indigenous models for indigenous communities. *American Journal of Public Health*, 96(4), 596-599.
- Coburn, D. (2004). Beyond the income inequality hypothesis: Class, neo-liberalism, and health inequalities. *Social Science & Medicine*, 58, 41-56.
- Dirks, K. T., & Ferrin, D. L. (2001). The role of trust in organizational settings. *Organization Science*, 12(4), 450-467.

- Dyass, J. V., Moody, L., & Siriwardena, A. N. (2005). Improving research quality and health care in rural areas: A case study of the contribution of a teaching primary care trust. *Quality in Primary Care, 13*, 183-190.
- Falk-Rafael, A. (2005). Speaking truth to power: Nursing's legacy and moral imperative. *Advances in Nursing Science, 28*(3), 212-223.
- Fiscella, K. (2003). *Assessing healthcare quality for minority and other disparity Populations*. Retrieved November 14, 2007, from <http://www.ahrq.gov/qual/qdisprep.pdf> p. 20
- Glueckauf, R. L., Stine, C., Bourgeois, M., Pomidor, A., Rom, P., Young, M.E., et al. (2005). Alzheimer's rural care healthline: Linking rural caregivers to cognitive-behavioral intervention for depression. *Rehabilitation Psychology, 50*(4), 346-354.
- Holkup, P. A., Tripp-Reimer, T., Salois, E. M., & Weinert, C. (2004). Community-based participatory research: An approach to intervention research with a Native American community. *Advances in Nursing Science, 27*(3), 162-175.
- Indian Health Services. (2006). Facts on Indian health disparities. Retrieved November 14, 2007, from <http://info.ihs.gov/Files/DisparitiesFacts-Jan2006.pdf>
- Kleiman, S. (2006). Discovering cultural aspects of nurse-patient relationships. *Journal of Cultural Diversity, 13*(2), 83-86.
- Lauder, W., Reel, S., Farmer, J., & Griggs, H. (2006). Social capital, rural nursing and rural nursing theory. *Nursing Inquiry, 13*, 73-79.
- Lewicki, R. J., McAllister, D. J., & Bies, R.J. (1998). Trust and distrust: New relationships and realities. *The Academy of Management Review, 23*(3), 438-458.
- Lee, C. D., Rosenfeld, E., Mendenhall, R., Rivers, A., & Tynes, B. (2004). Cultural modeling as a frame for narrative analysis. In C. Daiute & C. Lightfoot (Eds.), *Narrative analysis: Studying the development of individuals in society* (pp. 39-62). Thousand Oaks, CA: Sage Publications.
- McGregor, A. (2005). Enacting connectedness in nursing education: moving from pockets of rhetoric to reality. *Nursing Education Perspectives, 26*(2), 90-95.
- National Center on Minority Health and Health Disparities. (n.d.). *Strategic Research Plan and Budget to Reduce and Ultimately Eliminate Health Disparities*. Retrieved on November 20, 2007, from http://ncmhd.nih.gov/our_programs/strategic/index.asp
- National Rural Health Association. (n.d.). *Minority and Multicultural Affairs*. Retrieved November 20, 2007, from <http://www.nrharural.org/groups/sub/minority.html>
- Nye, N. S. (1995). *Words under the words*. Portland, OR: The Eighth Mountain Press.
- Office of Minority Health. (n.d.). *National Partnership for Action to End Health Disparities*. Retrieved November 20, 2007, from <http://www.omhrc.gov/npa/>
- Phillips, J., & Grady, P. A. (2002). Reducing health disparities in the twenty-first century: Opportunities for nursing research. *Nursing Outlook, 50*, 117-120.
- Rapp, D. E. (2006). Integrating cultural competency into the undergraduate medical curriculum. *Medical Education, 704*(40), 704-710.
- Rollnick, S., Miller, W. R. & Butler, C. C. (2008). *Motivational interviewing in health care: Helping patients change behavior*. New York: The Guilford Press.

- Scales, R., & Miller, J. H. (2003). Motivational techniques for improving compliance with an exercise program: Skills for primary care clinicians. *Current Sports Medicine Reports*, 2, 166-172.
- Sen, A. (2001). Other people. *The British Academy*. Retrieved November 6, 2006, from <http://www.britac.ac.uk/pubs/src/pbaindex/britacad00.html>
- Straker, H., & LeLacheur, S. (2007). Integrating cultural competency across the curriculum. *The Journal of Physician Assistant Education*, 18(2), 61-64.
- Stichler, J. F. (2007). Social intelligence: An essential trait of effective leaders. *Nursing for Women's Health*, 11(2), 189-193.
- Tanis, M., & Postmes, T. (2005). Short communication – A social identity approach to trust: interpersonal perception, group membership and trusting behaviour. *European Journal of Social Psychology*, 35, 413-424.
- Tashiro, C. J. (2005). Health disparities in the context of mixed race: Challenging the ideology of race. *Advances in Nursing Practice*, 28(3), 203-211.
- University of Glasgow. (2006, August 31). *Consultation and Relational Empathy (CARE) Measure*. Retrieved November 29, 2007, from <http://www.gla.ac.uk/departments/generalpractice/caremeasure.htm>
- U. S. Department of Health and Human Services. (2007). *Shortage designation*. Retrieved November 17, 2007, from <http://bhpr.hrsa.gov/shortage/>
- Van Maanen, J. (1988). *Tales of the field: On writing ethnography*. Chicago: University of Chicago Press.
- Vasas, E. B. (2005). Examining the margins: A concept analysis of marginalization. *Advances in Nursing Science*, 28(3), 194-202.
- Weinert, C. (2002). Rural nursing research: Riddle, rhyme, reality. Keynote addresses in *Communicating Nursing Research in Conference Proceedings*, Vol. 35; WIN Assembly, Vol. 10, *Health Disparities: Meeting the Challenge* (pp. 37-49). San Diego, CA: Western Institute of Nursing.

Appendix A



Indian Health Service Facts on Indian Health Disparities

"The elimination of health disparities is an important step in accomplishing the mission of the Indian Health Service – to raise the health status of American Indian and Alaska Native people."

Charles W. Grim, D.D.S., M.H.S.A.
Assistant Surgeon General
Director, Indian Health Service

Members of more than 560 federally recognized American Indian and Alaska Native Tribes and their descendants are eligible for services provided by the Indian Health Service (IHS). The IHS is an agency within the Department of Health and Human Services that provides a comprehensive health service delivery system for approximately 1.8 million of the nation's estimated 3.3 million American Indians and Alaska Natives (American Indian and Alaska Native alone; bridged 2000 census). Its annual appropriation is approximately \$3 billion. The IHS strives for maximum Tribal involvement in meeting the health needs of its service population, who live mainly on or near reservations and in rural communities in 35 states, mostly in the western United States and Alaska.

- ❑ Approximately 55% of American Indians and Alaska Natives living in the United States rely on the IHS to provide access to health care services in 49 hospitals and nearly 600 other facilities operated by the IHS, Tribes, and Alaska Native corporations, or purchased from private providers.
- ❑ The American Indian and Alaska Native people have long experienced lower health status when compared with other Americans. Lower life expectancy and the disproportionate disease burden exist perhaps because of inadequate education, disproportionate poverty, discrimination in the delivery of health services, and cultural differences. These are broad quality of life issues rooted in economic adversity and poor social conditions.
- ❑ American Indians and Alaska Natives born today have a life expectancy that is 2.4 years less than the U.S. all races population (74.5 years to 76.9 years, respectively; 1999-2001 rates), and American Indian and Alaska Native infants die at a rate of 8.5 per every 1,000 live births, as compared to 6.8 per 1,000 for the U.S. all races population (2000-2002 rates).
- ❑ American Indians and Alaska Natives die at higher rates than other Americans from tuberculosis (600% higher), alcoholism (510% higher), motor vehicle crashes (229% higher), diabetes (189% higher), unintentional injuries (152% higher), homicide (61% higher) and suicide (62% higher). (Rates adjusted for misreporting of Indian race on state death certificates; 2000-2002 rates.)
- ❑ Safe and adequate water supply and waste disposal facilities are lacking in approximately 12% of American Indian and Alaska Native homes, compared to 1% of the homes for the U.S. general population.
- ❑ Given the higher health status enjoyed by most Americans, the lingering health disparities of American Indians and Alaska Natives are troubling. In trying to account for the disparities, health care experts, policymakers, and Tribal leaders are looking at many factors that impact upon the health of Indian people, including the adequacy of funding for the Indian health care delivery system.
- ❑ The American Indian and Alaska Native population has several characteristics different from the U.S. all races population that would impact upon assessing the cost for providing similar health services enjoyed by most Americans. The Indian population is younger, because of higher mortality, than the U.S. all races. The IHS service population is predominately rural, which should suggest lower costs; however, the disproportionate incidence of disease and medical conditions experienced by the Indian population raises the costs, which almost obliterates the lower cost offsets.
- ❑ A stakeholder workgroup has developed an actuarial model to estimate the costs of personal health care services for Indian people similar to mainstream health plan benefits enjoyed by many Americans. According to the cost model, the IHS appropriated funding provides only 55% of the necessary federal funding to assure mainstream personal health care services to American Indians and Alaska Natives using the IHS system.

Source: Indian Health Service (2006).

Appendix B

The CARE Measure

© Stewart W Mercer 2004

1. Please rate the following statements about today's consultation. Please tick one box for each statement and answer every statement.						
<i>How was the doctor at ...</i>	Poor	Fair	Good	Very Good	Excellent	Does Not Apply
1. Making you feel at ease..... <i>(being friendly and warm towards you, treating you with respect; not cold or abrupt)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Letting you tell your "story"..... <i>(giving you time to fully describe your illness in your own words; not interrupting or diverting you)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Really listening <i>(paying close attention to what you were saying; not looking at the notes or computer as you were talking)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Being interested in you as a whole person ... <i>(asking/knowing relevant details about your life, your situation; not treating you as "just a number")</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Fully understanding your concerns..... <i>(communicating that he/she had accurately understood your concerns; not overlooking or dismissing anything)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Showing care and compassion.... <i>(seeming genuinely concerned, connecting with you on a human level; not being indifferent or "detached")</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Being Positive..... <i>(having a positive approach and a positive attitude; being honest but not negative about your problems)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Explaining things clearly..... <i>(fully answering your questions, explaining clearly, giving you adequate information; not being vague)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Helping you to take control..... <i>(exploring with you what you can do to improve your health yourself; encouraging rather than "lecturing" you)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Making a plan of action with you ... <i>(discussing the options, involving you in decisions as much as you want to be involved; not ignoring your views)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source: University of Glasgow (2006).

4 Issues With Hispanic Rurality and Promotoras

Trinette Radasa, RN, CNS-BC, MSN

The definition of *rurality* is distinctive, depending on the community being addressed. The U.S. Census Bureau defines rural as open country and settlements of fewer than 2,500 residents, exclusive of embedded suburbs of urbanized areas of 50,000 or more population (Institute of Medicine, 2005). Rurality includes a geographic location, away from larger suburban or urban area, where health care resources are lacking or limited. When addressing rurality, the environment of the people who are living in a rural area must be considered. Usually, these people living in rural settings have economic and health care challenges. Drevdahl (2002) illustrated some interesting points about border communities. Border communities are places where community members are seen as different (and deficient) often by virtue of their race, age, or income (Drevdahl, 2002). Hispanics usually live in border communities and are often deficient, usually in income and health care. Hispanics who live in border communities can be referred to as living in rural areas.

Problem

Hispanics living in rural settings often have numerous barriers to health care. Furthermore, there is an increased drawback to being both Hispanic and a rural resident. Rural barriers include a lack of physicians and nurses who practice in rural areas and scarcity of minority health care providers; rural residents are less likely to have a regular primary care provider. In addition, they must overcome barriers such as isolation, poverty, lack of insurance, and language differences (Conner, Rainer, Simcox, & Thomisee, 2007). Essential to this population is the prevention and early treatment of chronic diseases through early and focused attention on those patients who have symptoms or early tendencies toward chronic conditions, such as heart disease, stroke, cancer, and diabetes mellitus. This can be accomplished by the collaboration of nurses and promotoras, and the application of models specifically developed for chronic disease.

Barriers to Health Care

Lack of Health Care Providers

Access to primary care is a concern for all, especially those living in rural areas. It is important that patients see primary care clinicians in a timely manner to avoid hospitalizations and worsening of chronic conditions. However, according to Daniels, VanLeit, Skipper, Sanders, & Rhyne (2007), more than 10% of Americans live in

federally designated health professional shortage areas, where they have limited or nonexistent health care services. These shortages include physicians, advanced practice nurses, registered nurses, and many other related health professionals. Health professionals, nurses and physicians in particular, are critical resources, and their recruitment, retention, and education are much debated in discussions about rural health care delivery (Bushy, 2000). According to the Institute of Medicine (2005), many rural communities have difficulty attracting and retaining clinicians because of concerns about isolation, limited health facilities, or a lack of employment and education opportunities for their families.

Scarcity of Minority Health Care Providers

One factor that can impinge on both the availability and acceptability of health care is the degree to which the nation's health care professions reflect the racial and ethnic composition of the general population (Aguirre-Molina, Molina, & Zambrana, 2001). It is well known that minority health care professionals are underrepresented in the United States, especially in rural areas. The importance of racial and ethnic diversity in both the leadership and workforce of health care delivery systems has been well-correlated with the ability to provide quality care to socioculturally diverse patient populations (Aguirre-Molina et al., 2001). Having Hispanic health care providers, along with promotoras for Hispanics living in rural settings, will assist in improving the overall health status for this vulnerable population.

Isolation

Hispanics living in rural areas often exist as an invisible at-risk population because they live and work in areas that are physically and socially isolated from the greater community (Conner et al., 2007). Some live in *colonias*, which are unincorporated developments without public services—no water, sewage, or electricity (Williams, 2001). Houses in the colonias are often made of cardboard boxes and wooden pallets or cinder blocks. This type of often cramped and unsanitary housing increases disease transmission and may also lead to violence and abuse (Sandhaus, 1998). According to Sandhaus (1998), “the children of these workers suffer homelessness, lack of friends, frequent relocation, poverty, and schooling interruptions, posing psychosocial and developmental risks” (p. 52). Promotoras usually live in these same communities and have developed a trusting relationship with those to whom they provide advocacy.

Poverty and Lack of Insurance

Many rural Hispanics do not have health insurance and live below the poverty level. A major reason why so many rural Hispanics lack health insurance is that their employers do not offer them coverage (Molina-Aguirre et al., 2001). Other reasons for lack of insurance include lack of citizenship, lack of education, and type of work. Those Hispanics who are not U.S. citizens more than likely work at jobs that do not provide insurance coverage. Lack of education contributes to lack of insurance, and those less educated are less likely to have insurance. Workforce characteristics are also important;

individuals employed in agricultural, mining, service, domestic, and construction industries are not as likely to be covered as those in manufacturing and “white-collar” industries (Molina-Aguirre et al., 2001).

Poverty influences all aspects of health and well-being and underlies health disparities (Conner et al., 2007). This is especially true in rural areas where poverty rates exceed those in urban areas (National Advisory Committee on Rural Health and Human Services, 2004). An uninsured person is twice as likely as an insured person to go without medical care (Sherrill et al., 2005). Often, because they have no insurance or money, Hispanics will go for long periods of time without much-needed medical treatment, leading to a much worse illness, which may have been prevented if earlier treatment was established.

Language Barriers

Hispanics who do not know English may not seek medical treatment because of the language barrier. Because the number of Spanish-speaking health care providers is often limited, Hispanics may be forced to seek medical treatment from health care professionals who do not speak their language. These language barriers lead to difficulties in understanding symptoms, asking questions and decreased trust in the health care provider’s ability to comprehend their medical needs (Sherrill et al., 2005). Communication is essential of successful health care treatment, and decreasing language barriers is critical to delivery of care.

Chronic Diseases

The Centers for Disease Control and Prevention (CDC) indicates that chronic diseases, such as heart disease, cancer, and diabetes, are the leading causes of death and disability in the United States, and chronic diseases account for 70% (1.7 million) of all deaths. Although chronic diseases are among the most common and costly health problems, they are also among the most preventable (CDC, 2007). Education about healthy behaviors, such as eating nutritious foods, being physically active, and avoiding tobacco use, can prevent or control the devastating effects of these diseases (CDC, 2007). Incorporating promotoras into education and health promotion in the Hispanic population will assist in improving the incidence of chronic diseases as research has indicated.

Hunter et al. (2004) used an intervention that tested the effectiveness of a promotora to assist in increasing compliance with annual preventative exams among uninsured Hispanic women living in a rural U.S.–Mexico border area. They found that receiving the promotora intervention was associated with a 35% increase in rescreening over the postcare-only reminder and using promotoras to increase compliance with routine screening exams was an effective strategy for reaching this female population.

Heart disease. The most important risk factors for cardiovascular disease in adults are age, family history, diabetes mellitus, sedentary lifestyle, high cholesterol level, cigarette smoking, and high blood pressure. It is important that Hispanics are educated on

the risk factors that can be decreased for heart disease because most of these risk factors can be modified through behavior changes or medications. However, risk factors that are genetic, such as age and family history, cannot be modified. Balcazar et al. (2006) conducted a study to improve heart-healthy behaviors among Hispanic families using *promotores de salud* (community health workers) and found *promotoras* to be effective in improving heart-healthy behaviors.

Cancer. Major cancers include the prostate, breast, lung, colon, and rectum. The rate of cancer is higher among Hispanics than among non-Hispanics overall. However, Hispanics suffer more commonly with other cancers, such as stomach and cervical. Because of this, the impact of cancer in Hispanics is significant and needs to be addressed. Hispanics have a lower risk of lung cancer, which is probably due to their historically lower rates of cigarette smoking (Aguirre-Molina et al., 2001). Hispanics are known to eat a low-fat, high-fiber diet, which may be why their incidence of colorectal cancer is lower compared with many non-Hispanics. The risk of breast cancer incidence is also lower among Hispanics, most likely due to multiple births and a low-fat diet.

Conversely, the rates of cervical cancer are increased among Hispanics, which may be related to risk factors such as early age of initial intercourse and multiple sex partners. The rate of prostate cancer is somewhat lower in Hispanics compared with non-Hispanics, which may be attributable to diet. Although stomach cancer has long been known to be related to socioeconomic status, little is known about the exact causes of the high risk among Hispanics (Aguirre-Molina et al., 2001). Both male and female Hispanics are often plagued with liver cancer. This may be due to their increased intake of alcohol and increased incidence of hepatitis. Another aspect that increases their risk of liver cancer is working in the agriculture setting and being exposed to the chemicals that are used. The implementation of interventions to decrease the risk factors of cancer is imperative in this population. This can be done by nurses and *promotoras* through education and health promotion.

Diabetes. According to Koopman, Mainous, & Geesey (2006), the rural Hispanic population may be doubly disadvantaged, with nearly double the prevalence of diagnosed diabetes of urban Whites and urban Hispanics, and a 50% greater prevalence than rural Whites. Several factors contribute to Hispanics' risk of diabetes, including genetic factors, obesity, diet, and decreased physical activity. The consequences of diabetes can be detrimental to overall health status. It is well known that diabetes leads to macrovascular complications that include coronary heart disease and cerebrovascular disease. In addition, microvascular complications include diabetic retinopathy, diabetic neuropathy, and diabetic nephropathy. Education regarding healthy lifestyles, such as self-management through diet and exercise, will help to prevent these complications. Coronado, Thompson, Tejeda, Godina, & Chen (2007) conducted a study using data from a rural population and found that Hispanics had a higher age-adjusted prevalence of type 2 diabetes than non-Hispanic Whites and engaged less frequently in self-management practices to control diabetes. Initiatives that target Hispanic health, especially diabetes, should acknowledge rural/urban Hispanic health differences (Koopman et al., 2006).

Promotoras and Nurses

Promotoras have been found to be trusted members of the communities in which they live. Promotoras can perform many different duties, including outreach and case finding, health education, patient education, translation, patient transportation, and case management (under the supervision of a nurse; Zuvekas, Nolan, Tumaylle, & Griffin, 1999). Several studies have shown the benefits of using promotoras in the realm of health care within the Hispanic population. A study conducted by Hunter et al. (2004) demonstrated that promotoras can make a significant difference in women's routine preventive health care-seeking behavior. Kelly, Lesser, Peralez-Dieckmann, & Castilla (2007) found that nurses working in community mental health settings must use innovative primary prevention strategies, such as culturally appropriate interventions that include promotoras.

Larkey (2006) found that a culturally aligned education program using promotoras and emphasizing social support among participants may improve prevention and selected screening behaviors. Lujan, Ostwald, & Ortiz (2007) conducted a randomized controlled trial to determine the effectiveness of an intervention led by promotoras on glycemic control, diabetes knowledge, and diabetes health beliefs of Mexican Americans and found that a diabetes education program, taught by trained promotoras could result in decreased glycosylated hemoglobin levels as well as increased diabetes knowledge. With the help of promotoras, community-based health information outreach projects may improve the ability of community residents to understand their health conditions and to participate actively in their health care (Olney, Warner, Reyna, Wood, & Siegel, 2007).

According to Sherrill et al., 2005, "some clinics employ a promotora and nurse practitioner to interact with the patients. The nurse practitioner assesses patients and identifies health problems that they might have. "Promotoras are responsible for helping the patients learn how to treat their diagnoses and in addition educating the patients about prevention strategies, such as vaccinations, diet, and exercise" (p. 362).

Nurses can act as advocates for promotoras in that they could be a resource for questions that may arise. Nurses can also help with the training of promotoras and continuing education. Promotoras can serve as a liaison between the community and nurses, conveying the needs of the community to nurses because they have developed a trusting relationship. It is important to regularly assess the training and knowledge of promotoras and implement continuous education reinforcement. Nurses could become involved with the proper training of promotoras and work closely with them, thus building a positive relationship between the two.

We must develop holistic approaches to health care that expand the role of nonprofessional health care providers. Promotoras can handle many issues in the full scope of their professional training. Promotoras have the ability and knowledge to convey health information to various groups that are in the poor, underserved Hispanic rural communities. In doing so, more information is made available to this population so they can make informed decisions and are aware of available choices in treatment. These

promotoras can be used to bridge the gap between the underserved rural Hispanic population and nurses.

Overall Purpose Statement

My interest has become clear while conducting research on the Hispanic diabetic population, promotoras, nurses, the Chronic Care Model (CCM), and most recently, the Chronic Illness Model (CIM). I would like to further investigate the importance of using promotoras to bridge the communication gap between the Hispanic chronically ill populations along the rural U.S.–Mexico border and nurses, all the while applying the CCM or the CIM to practice. By incorporating promotoras into these models, some of the barriers can be addressed and possibly lessened. The purpose of this chapter is to define rurality and explain how it is relevant to the rural Hispanic population, discuss the barriers to health care this population is plagued with, address how these barriers can be eliminated by nurses and promotoras, and apply the CCM or CIM to practice.

Substantive Analysis

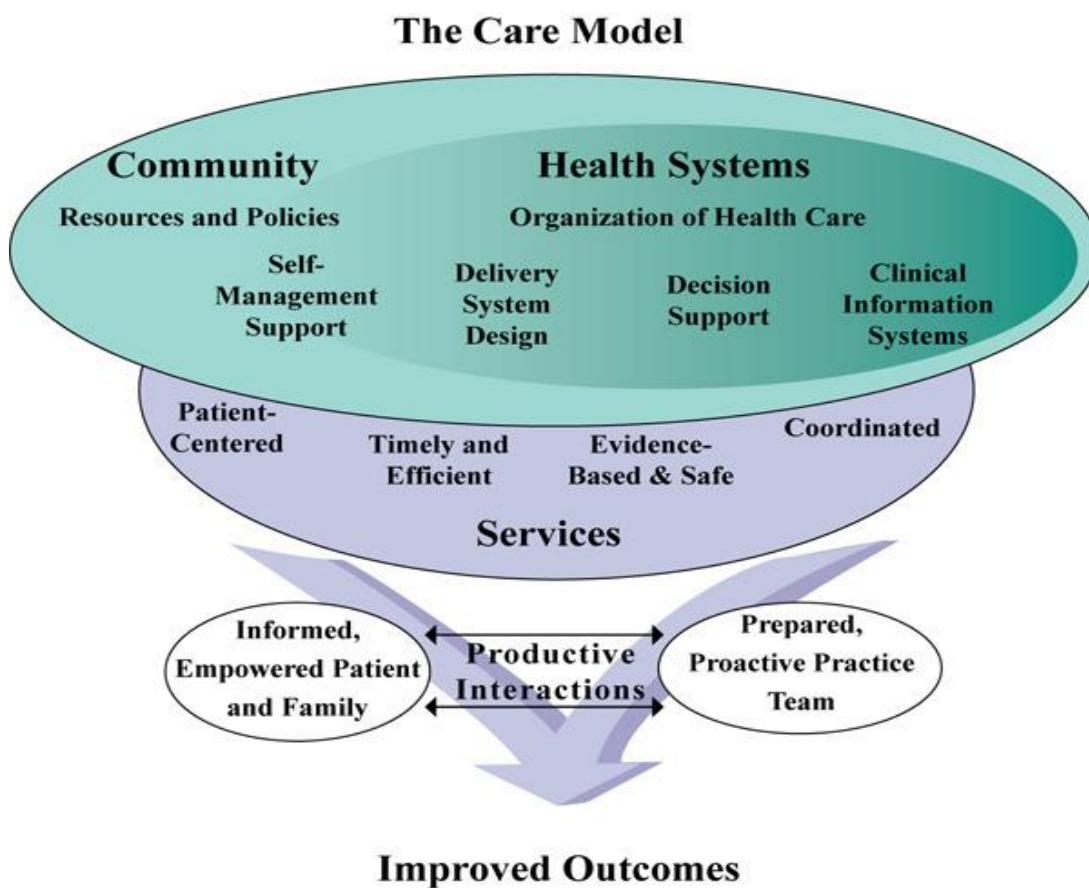
Initially, we must realize the importance of addressing the problems faced by the Hispanic population living in rural areas. Second, as nurses we must develop innovative ways to approach these issues and how to improve or eliminate them. Third, the implementation of innovative strategies on addressing chronic illness is crucial. This can be approached by use of the CCM or the CIM, nurses, and promotoras.

Chronic Care Model

Chronic illness is a common challenge for nurses working with the Hispanic population. Furthermore, meeting the needs of patients with chronic illness or impairment is the single greatest challenge facing organized medical practice (Wagner, 1998). The CCM is an organizing framework for improving chronic illness care and an excellent tool for improving care at both the individual and population levels (Fiandt, 2007). Wagner (1998) states that he, along with other staff at the MacColl Institute for Healthcare Innovation developed the CCM drawing on available literature about promising strategies for chronic illness management, and organizing the literature in a new more accessible way.

The model was further refined during a 9-month planning project supported by The Robert Wood Johnson Foundation (RWJF) and revised based on input from a 40-member advisory committee including experts from medicine, nursing, health services research, patient education, quality improvement, performance evaluation, and accreditation as related to the care of chronic illnesses (Wagner, Davis, Schaefer, Von Korff, & Austin, 1999). Further funding provided by RWJF allowed the MacColl Institute to test the CCM in various health care settings that included congestive heart failure patients, diabetes management, and cooperative health care clinics (Wagner et al., 1999). Thus, the national program was titled “Improving Chronic Illness Care” (ICIC, 2007).

The essential elements of the CCM (Figure 1) include a health care system that encourages high-quality chronic disease care. The essential elements include: 1) the community, 2) the health system, 3) self-management support, 4) delivery system design, 5) decision support, and 6) clinical information systems. More specific concepts were added to each of the six elements of the CCM by the ICIC and experts in the last few years to reflect advances in the field of chronic care both from the research literature and from the scores of health care systems that implemented the model in the improvement efforts (ICIC, 2007). These concepts include patient safety (Health Systems), cultural competency (Delivery System Design), care coordination (Health Systems and Clinical Information Systems), community policies (Community Resources and Policies), and case management (Delivery System Design).



Developed by The MaColl Institute

Figure 1. The Chronic Care Model.

Promotoras, Nurses, and the CCM

Research has shown that promotoras can have a positive effect on patient and program outcomes. Health care systems innovations using the promotoras concept have resulted in increased utilization of preventive services (Hunter et al., 2004; Zuvekas et al., 1999). Peer educators assisted in the improved self-management of diabetes in individuals (Lorig, Ritter, & Gonzalez, 2003).

While conducting research with the diabetic population in a regional community health system serving a large section of Dona Ana County, situated in a U.S.–Mexico border region, we found two system innovations that had been adopted in order to address the obstacles and barriers that fuel health disparities in the Southwestern region, promotoras and the CCM. Promotoras are the key link between nurses and the patient and/or the community. They bridge between the system and the community, facilitate access to care, mobilize community networks that support Hispanics and their families, and assure community participation in the design and delivery of health care services (Ramos, May, & Ramos, 2001). Furthermore, promotoras are performing an important support role in self-management support in education. Promotoras need to be able to feed information from the field back to the system. They also have to have the support of the system so that individualized self-management strategies are reinforced in the field. This is why it is important to include promotoras as part of the CCM.

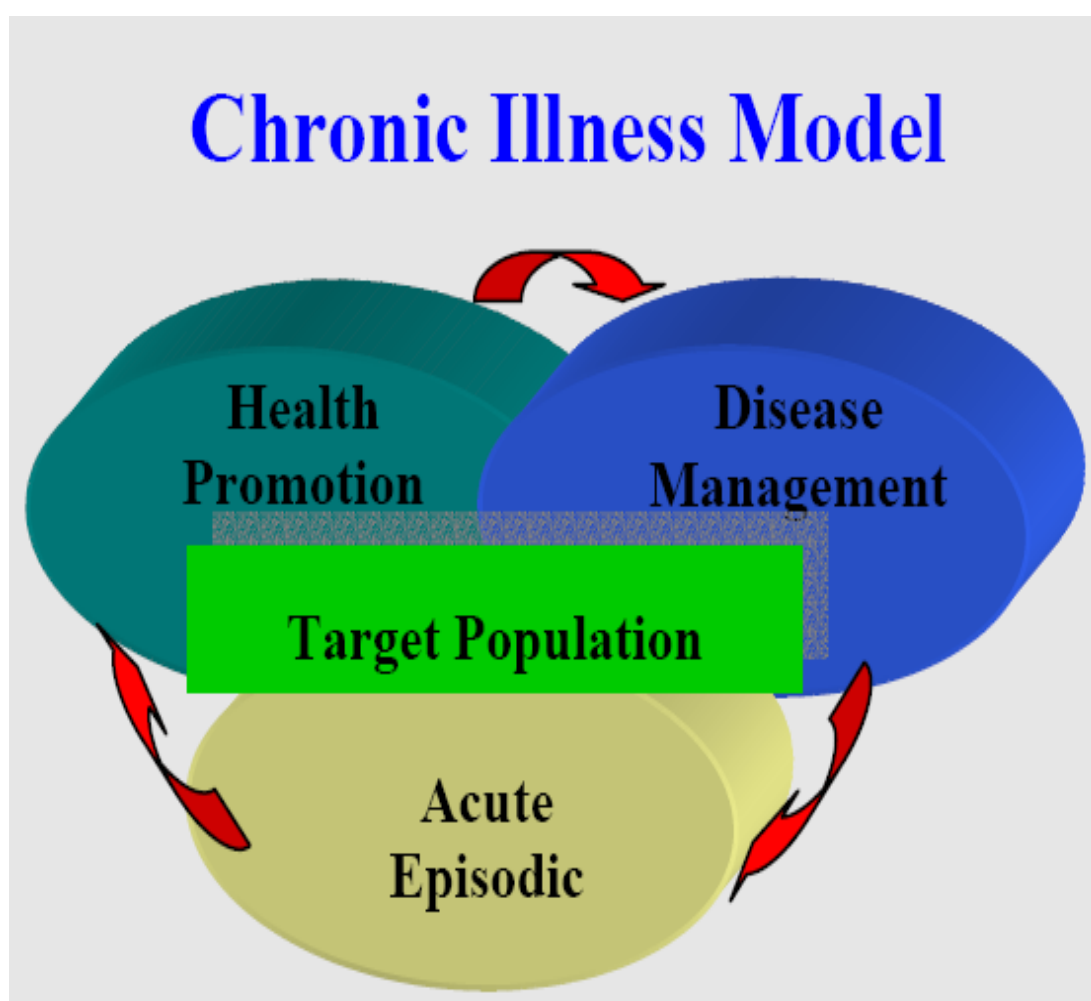
Nurses and promotoras can function in the essential elements of the CCM. For example, clinical information systems provide cues for clinical management of chronic illnesses and direct goals of self-management education. Evidence-based decision support provides access to evidence guidelines for self-management education. Delivery system designs that promote access assist with appointments, scheduling, and follow-up procedures as directed by clinical indicators. Self-management support includes written educational materials provided by the nurses and promotoras in addition to planning and goal-setting during client encounters. Organization of the system includes organizational goal setting based on population statistics, and quality improvement or performance improvement activities. Nurses and promotoras can educate and provide information regarding community resources, such as available medical specialists for referrals, food sources, medication assistance programs and diabetes products available in the community, such as foot care products, exercise opportunities, and special cooking classes.

CIM and Chronic Disease Management in Rural Areas

The Southwest Rural Health Research Center is in its third year of research on chronic disease management (CDM). The foundational core and guiding principle of CDM is the prevention and early treatment of chronic diseases through early and focused attention on patients who have symptoms or early tendencies toward chronic conditions, such as congestive heart failure, diabetes, and chronic obstructive pulmonary disease through application of the CIM. Donna Zazworsky, RN, MSN, directs a disease management program and developed the CIM approach to disease management. Zazworsky and

colleagues have been able to demonstrate the relationship between CDM interventions and patient outcomes based on the CIM (Bolin, Gamm, Zuniga, Berger, & Kash, 2003; Figure 2).

Within this model is a specified target population, for example, heart disease. Health risk appraisal screening, medical management, and monitoring for early referral is initiated through health promotion. For a patient with a diagnosis of a chronic disease, a risk assessment is completed and patient self-management is monitored by visits, coordination, and communication. In the event of an acute episode, risk assessment is completed for hospital admission and support services are initiated. All this can be implemented by the nurse and a promotora.



Developed by Donna Zazworsky

Figure 2. The Chronic Illness Model.

Summary

Chronic illness is a common challenge for nurses working with the rural Hispanic population. Furthermore, meeting the needs of patients with chronic illness or impairment is the single greatest challenge facing organized medical practice (Wagner, 1998). Rural Hispanics often have numerous barriers to health care and well-being. It is known that there is a shortage of health care providers, particularly minority health care providers, in rural settings. As a result, Hispanics are less likely to seek treatment because they feel that non-Spanish-speaking providers will not understand their needs. Rural Hispanics often live in isolated communities and in poor conditions, thus increasing their risk for diseases. Poverty is common in rural areas and leads to lack of insurance and money to seek health care. Rural Hispanics are also at increased risk for chronic diseases such as heart disease, cancer, and diabetes. Promotoras are used today by many to educate people about such topics as cancer, diabetes, geriatrics, general health, HIV/AIDS, housing, lead poisoning prevention, mental health, sexual health, and more (Savinar, 2002). Promotoras can motivate Hispanics to adopt healthy lifestyle behaviors through health promotion and educational interventions.

The CCM and CIM can also be utilized as a system of support for nurses and promotoras. Research with the CCM has indicated promising strategies for chronic illness management, and by incorporating promotoras into this system, chronic illness in the rural Hispanic population can be effectively addressed. The CCM is an organizing framework for improving chronic illness care and an excellent tool for improving care at both the individual and population levels (Fiandt, 2007). Although not much literature was found about the CIM, it appears also to be a useful model for the management of chronic illness. Nurses and promotoras can also use this model for health promotion, disease management, and acute episodes with the target population.

The prevalence of chronic diseases in the rural the Hispanic population needs to be addressed by the use of innovative strategies for intervention implementation. Nurses and health care providers are continually challenged by communication barriers and trust issues within underserved populations, specifically in rural Hispanic communities along the U.S.–Mexico border, and promotoras can play a key role in improving these barriers and issues and implementing interventions to this population.

References

- Aguirre-Molina, M., Molina, C., & Zambrana, R. (2001). *Health issues in the Latino community* (1st ed.). San Francisco: Jossey-Bass.
- Balcazar, H., Alvarado, M., Hollen, M., Gonzalez-Cruz, Y., Hughes, O., Vazquez, E., et al. (2006). Salud para su Corazon-NCLR: A comprehensive promotoras outreach program to promote heart-healthy behaviors among Hispanics. *Health Promotion Practice, 7*(1), 68-77.

- Bolin, J., Gamm, L., Zuniga, M., Berger, E., & Kash, B. (2003). *Chronic disease management in rural and underserved areas: Patient responses and outcomes*. final, College Station, TX: Southwest Rural Health Research Center, School of Rural Public Health, Texas A&M System Health Science Center.
- Bushy, A. (2000). *Nursing in the rural community*. Thousand Oaks, CA: Sage .
- Centers for Disease Control and Prevention. (2007, November 18). Chronic disease prevention. Retrieved November 18, 2007, from <http://www.cdc.gov/nccdphp/>
- Conner, A., Ainer, L., Simcox, J., & Thomisee, K (2007). Increasing the delivery of health care services to migrant farm worker families through community partnership model. *Public Health Nursing* , 24(4), 355-360.
- Coronado, G., Thompson, B., Tejada, S., Godina, R., & Chen, Lu. (2007). Sociodemographic factors and self-management practices related to type 2 diabetes among hispanics and non-hispanic whites in a rural setting. *The Journal of Rural Health* , 23(1), 49-54.
- Daniels, Z., VanLeit, B., Skipper, B., Sanders, M., & Rhyne, R. (2007). Factors in recruiting and retaining health professionals for rural practice. *The Journal of Rural Health* , 23(1), 62-71.
- Drevdahl, D. (2002). Home and border: the contradictions of community. *Advances in Nursing Science* , 24(3), 8-20.
- Fiandt, K., (2007). The chronic care model: description and application for practice [Electronic version]. *Advanced Practice eJournal*, 6(4), 1-8.
- Hunter, J., de Zapien, J., Papenfuss, M., Fernandez, M., Meister, J., & Giuliano, A. (2004). The impact of a promotora on increasing routine chronic disease prevention among women aged 40 and older at the u.s.-mexico border. *Health Education & Behavior* , 31(4), 18S-28S.
- ICIC: *The chronic care model: model elements*. (n.d.). Retrieved February 15, 2007, from <http://www.improvingchroniccare.org/change/model/components>
- Institute of Medicine. (2005). *Quality through collaboration: The future of rural health*. Washington, DC: The National Academic Press.
- Kelly, P., Lesser, J., Peralez-Dieckmann, E., & Castilla, M. (2007). Community-based violence awareness. *Issues in Mental Health Nursing* , 28, 241-253.
- Koopman, R., Mainous, A., & Geesey, M. (2006). Rural residence and hispanic ethnicity: doubly disadvantaged for diabetes? *The Journal of Rural Health* , 22(1), 63-68.
- Larkey, L. (2006). Las mujeres saludables: Reaching latin@s for breast, cervical and colorectal cancer prevention and screening. *Journal of Community Health* , 31(1), 69-77.
- Lorig, K., Ritter, P., & Gonzalez, V. (2003). Hispanic chronic disease self-management: a randomized community-based outcome trial. *Nursing Research* , 52(6), 361-369.
- Lujan, J., Ostwald, S., & Ortiz, M. (2007). Promotora diabetes intervention for Mexican Americans. *The Diabetes Educator* , 33(4), 660-670.
- National Advisory Committee on Rural Health and Human Services. (2004). *The 2004 Report to the Secretary: Rural Health and Human Service Issues*. Retrieved February 20, 2008, from <http://ruralcommittee.hrsa.gov/nacpubs.htm>

- Olney, C., Warner, D., Reyna, G., Wood, F., & Siegel, E. (2007). Medline plus and the challenge of low health literacy: finding from the colonias project. *Journal of the Medical Library Association*, 95(1), 31-39.
- Ramos, I. N., May, M., & Ramos, K. S. (2001). Environmental health training of promotoras in colonias along the Texas-Mexico border. *American Journal of Public Health*, 91(4), 568-570.
- Sandhaus, S. (1998). Migrant health: a harvest of poverty. *The American Journal of Nursing*, 98(9), 52-54.
- Savinar, R. (n.d.) *California takes on "promotora" model of community outreach a success*. <http://www.proyectovision.net/cgi-bin/pfp.cgi?doc=self&top=self>
- Sherrill, W., Crew, L., Mayo, R., Mayo, W., Rogers, B., & Haynes, D. (2005). Educational and health services innovation to improve care for rural hispanic communities in the us. *Education for Health*, 18 (3), 356-367.
- Wagner, E. (1998). Chronic disease management: what will it take to improve care for chronic illness? *Effective Clinical Practice*, 1, 2-4.
- Wagner, E., Davis, C., Schaefer, M., Von Korff, M., & Austin, B. (1999). A survey of leading chronic disease management programs: are they consistent with the literature? *Managed Care Quarterly*, 7(3), 56-66.
- Williams, D. (2001). La promotora: linking disenfranchised residents along the border to the U.S. health care system. *Health Affairs*, 20(3), 212-218.
- Zuvekas, A., Nolan, L., Tumaylle, C., & Griffen, L. (1999). Impact of community health workers on acces, use of services, and patient knowledge and behavior. *Journal of Ambulatory Care Management*, 22(4), 33-44.

5 The Rural Homeless: An Empirically Neglected Community

Dale Payment, RN, MSN, JD

*The poor in contemporary America are often an illness, an accident,
or a paycheck away from potentially living on the streets.*

John Pardeck (Rollinson & Pardeck, 2006, p. xiii)

No segment of America's vulnerable population is as invisible as are the rural homeless. This invisibility, along with other factors, has contributed heavily to this group's social neglect. Society's mental image of the homeless is set in an urban context, overwhelmingly represented by unemployed, disheveled men who inhabit street corners or freeway off-ramps. When asked about the homeless, the public conjures up visions of these men going through trash; panhandling; sleeping in shelters, alleyways, or under overpasses; and showing signs of chronic alcohol use, substance abuse, or mental health problems (Bushy, 2000; National Coalition for the Homeless [NCH], 2007).

Albeit in lower numbers, the homeless also inhabit the small towns and country corners of rural America. Even though their demographics, experiences, and ordeals are in contrast to the urban homeless, the rural homeless still suffer from the extreme poverty and unattended health problems common to all homeless individuals. Despite these serious problems, the state of the knowledge about this community is rife with gaps and outdated data. As an example, not even a rudimentary count is available to accurately represent their numbers (Rollinson & Pardeck, 2006).

Perspective

The twin aims of this chapter are to argue persuasively that the rural homeless are the victims of neglect by both the governmental and nongovernmental research sectors and to advocate for a resolution of this investigative disregard, especially as it relates the area of health disparities. Disturbingly, this is necessary because the *research gap* affects the most salient aspect of the quality of life experienced by this inconspicuous group—the health inequities they endure. If the empirical neglect is continued, it will put the citizens of this populace at serious risk for the consequences of disease and illness.

In advocating for resolution of the research gap, this chapter will present succinct coverage of the current state of the knowledge of the rural homeless' (a) demographics, (b) prominent health care needs, and (c) health care access. It will also present a conceptual definition of rural homelessness, well positioning future investigators to

perform research and plan positive strategies from their findings that will effectively improve the quality of life for this neglected community.

Background of Rural Homelessness

Uncertain Numbers

An accurate assessment of the rural homeless population is lacking because, among other things, an accurate count of America's *total* homeless population remains so elusive (Cunningham & Henry, 2007). Factors that sabotage a precise census of homeless persons include: (a) the stigma associated with the extreme poverty of homelessness fosters social isolation; (b) most surveys capture only the "chronically homeless," who use shelters, soup kitchens, and other service providers; and (c) the transitory quality of the condition—homelessness is largely an episodic state. Despite this situation, attempts at national homeless counts continue and are either "point-in-time" (e.g., cross-sectional) or longitudinal. However, the use of multiple forms of these different methods have led to a confusing medley of results (Rollinson & Pardeck, 2006; U.S. Department of Housing and Urban Development [HUD], 2007)

Recently, HUD did a rigorous point-in-time assessment of the nation's homeless. This count involved a national survey of *unsheltered* and *sheltered* homeless on a single day in January 2005 and produced a national estimate of 754,147 homeless. This assessment reflects other point-in-time counts, which have ranged from 640,000 to 840,000 persons (HUD, 2007).

Longitudinal estimates clearly contrast with point-in-time estimates because of the longer "span of time" examined. Although debatable, longitudinal counts may offer a better representation of the homeless than the point-in-time estimates because of the more expansive data collection method used. From an analysis of the U.S. Census Bureau's 1996 National Survey of Homeless Assistance Providers and Clients (NSHAPC) data, Burt and coworkers estimated that America's homeless population, including children, during a 1-year period ranged from 2.5 million to 3.5 million (Burt, Aron, & Lee, 2001).

Disappointingly, a direct count of the rural homeless is still undone. This has led to ambiguous estimates calculated proportionally from the national homeless numbers. Suggested percentages for the rural homeless have ranged from 7% to 14% of the national homeless population (Bushy, 2000). The "gold standard" cited most often is that 9% of the nation's homeless population is rural (Burt et al., 2001). However, this value is often criticized as underestimating the rural homeless because the Census Bureau excluded unstably housed people in rural areas that did not participate in any targeted homeless support programs (HUD, 2007; Post, 2002; Rollinson & Pardeck, 2006)

In an effort to reasonably obtain estimates of the size of the rural homeless population, the author performed the following calculations. By multiplying the 2007 HUD national homeless count by 9%, a point-in-time estimate of the U.S. rural homeless population resulted, which ranged from 53,000 to 106,000. Extrapolating a 1-year value was more

imprecise. Multiplying Burt and co-workers' 2001 estimate by 9% resulted in a finding that between 225,000 and 315,000 rural individuals experience homelessness each year. Note that these estimations are very dependent on the values of homeless used.

Select Characteristics of Rural Versus Urban Homeless

To demonstrate the distinctive nature of rural homelessness and begin the argument for its further study, the major demographic findings of the 1996 NSHAPC study of both rural and urban homeless populations are shown in Table 1 and discussed here (Burt et al., 1999; Post, 2002).

Among the clients of the service providers, men predominated in both rural and urban populations; yet, the percentage in the rural population was higher. In the rural areas surveyed, nearly 8 of every 10 homeless persons were male, whereas in the cities, roughly 7 of every 10 were male. Consequently, in the rural setting, women made up less of the homeless population than in the urban.

Homelessness seems to be a young adult to midlife phenomenon in both rural and urban contexts. However, more of the young and old were among the homeless in the cities than in rural surroundings.

Racial and ethnic diversity displayed a clear contrast between the locales. Blacks in the cities had a plurality among the homeless, followed by White non-Hispanics, Hispanics, and Native Americans. Rurally, White non-Hispanics and Native Americans were almost equal as the most numerous groups, followed by Blacks and Hispanics, respectively.

Monthly average income was nearly \$100 more among the rural homeless than their urban counterparts. This fact may partly explain why a rural homeless person is more likely to report that his or her current episode of homelessness is less than 3 months, whereas an urban homeless individual is more likely to report being homeless for over a year.

Although equal percentages of both homeless groups reported having problems with drug, alcohol, and mental health (DAM) issues in the prior month, overall, they displayed dissimilarities in the particular problem they had. In the rural areas, alcohol use problems prevailed, with mental health and drug use problems occurring less often. In the cities, mental health issues were the prevalent problem, closely trailed by alcohol use. Drug use issues were the least troublesome DAM problem in the cities, yet still exceeded the rate of the rural homeless.

Finally, the most disturbing characteristic that differentiated the two groups was the availability of health care access. The rural homeless reported that when they felt they needed medical attention, they were not able to see a provider nearly half the time. This important result finds support in other studies (National Alliance to End Homelessness [NAEH], 2007).

Table 1
Characteristics of Rural Versus Urban Homeless

	Rural	Urban
Sex		
Male	77	71
Female	23	29
Age		
< 25 Years old	7	13
25-54 Years old	88	79
> 55 Years old	5	8
Race/ethnicity		
White ^a	42	37
Black ^a	9	46
Hispanic	7	11
Native American	41	5
Other	< 1	1
Family household ^b	17	14
Economic status		
Mean monthly income (\$)	\$449	\$341
Current homeless episode		
< 3 months	55	27
> 12 months	27	48
Drug-alcohol-mental health (DAM) issues		
Any DAM issue in last 30 days	67	67
Drug use issue	15	28
Alcohol use issue	48	39
Mental health issue	26	41
Health care access within past year		
Able to access when needed	53	78
Not able to access when needed	47	22

Note. All values are percentages except for mean monthly income, which is shown in dollars. Adapted from Homelessness: Programs and the People They Serve by M. R. Burt, L. Y. Aron, T. Douglas, J. Valente, E. Lee and B. Iwen, 1999, p. 34. Copyright 1999 by the Urban Institute.

^aNon-Hispanic.

^bHomeless person is considered a family household if he or she lives with one or more biological child < 18 years old.

Suggested Origins

A scholarly dispute exists as to the causative agents of homelessness. The experts are divided between two schools of thought. The first school argues that people's vulnerabilities are responsible for their homeless state. The vulnerabilities refer to individual disabilities, such as severe alcoholism, mental illness, or addiction, that prevent a person from being able to maintain himself or herself independently. The other school is composed of scholars who believe structural circumstances in the environment play a critical role in making people homeless. In this argument, poverty is the strongest catalyst leading to homelessness. When people are unemployed or without adequate income, they have to make unpleasant choices, such as buying food rather than paying for rent or health care (Rollinson & Pardeck, 2006; Sommers, 2001). Poverty also has strong empirical support for being a dominant factor in contributing to rural homelessness, such as rural America's long history of a higher poverty rate than in cities, and it is estimated that up to two thirds of rural homeless are high-school dropouts who often have temporary, low-wage jobs (Jensen, 2006; Post, 2002).

Health Care Needs

Generally, the health care needs of the rural homeless mirror those of the urban homeless. Overcrowded living conditions, infectious disease, exposure to environmental elements, and the long-term stress involved in obtaining food and shelter are just a few examples of how their vulnerability to poor health is increased (Bushy, 2000; Post, 2002).

In their 1999 review, Burt and colleagues stated the NSHAPC study found the following chronic medical conditions reported by the rural homeless: hypertension, heart disease, diabetes, and chronic obstructive pulmonary disease (COPD). Other researchers support the above findings and have added asthma, circulatory, and liver disorders as among the common medical disorders for which the rural homeless seek treatment (Craft-Rosenberg, Powell, & Culp, 2000; First, Rife, & Toomey, 1994). Alarming, the death rates from heart disease and COPD are higher in rural than in urban areas (National Center for Health Statistics, 2001; NCH, 2006).

Mental health and substance abuse problems are among the major health issues identified among the rural homeless, although the incidence of these problems is below what occurs in the urban homeless. Diagnostically, disorders such as posttraumatic stress disorder; clinical depression, schizophrenia, and various forms of substance abuse problems are among those most often mentioned by rural health practitioners (Burt et al., 1999; NCH, 2006; Post, 2002).

Another health care difficulty faced by the rural homeless is the threat of infectious diseases. Hepatitis C, pneumonia, tuberculosis, and HIV/AIDS occur regularly among this population (Craft-Rosenberg et al., 2000; Burt et al., 1999). These illnesses are potentially pernicious or worse—fatal among the vulnerable segments of this population (i.e., children, elderly, etc.) if health care access is impaired (Post, 2002).

Factors Contributing to Lack of Health Care Access

According to rural health care providers, three pivotal obstacles impede the homeless in rural America from obtaining timely health care: (a) transportation, (b) health care insurance, and (c) managed care. Lack of, or limited, transportation often prevents a homeless person from obtaining health care access when it is needed. A public transportation system in a rural environment is a rarity, and it is unlikely that a rural homeless person owns an automobile. Even if a rural health clinic is within 10 miles, it may be virtually impossible for a sick person to travel there without assistance. Additionally, geographic features, such as mountains, deserts, and frequent inclement weather are often additional barriers to health care access (Post, 2002).

The lack of health care insurance seems endemic to the rural setting, and the homeless are the group most affected (NAEH, 2007). According to Burt et al. (1999), nearly two thirds of the rural homeless are without any form of health insurance, so they are limited to rural sliding-scale health clinics, which are notorious for long waiting lines or refusal of service. “The only clinic in Chippewa County that sees clients on a sliding scale is so full that it turns away one-third of the people seeking services” says a provider in Tennessee (Post, 2002, p. 18).

Another major obstacle to health care access for the rural homeless occurs because managed care corporations, such as Presbyterian Medical Services in New Mexico, operate numerous rural health clinics in support of state Medicare programs for low-income citizens. The rural homeless are often unable to obtain the care to which they are entitled at these clinics because they are not familiar with the enrollment process or do not have permanent addresses (Post, 2002).

Fostering Research on the Rural Homeless

In an effort to encourage scientists, clinicians, and educators to engage in research on the health disparities of the rural homeless, this section presents the following preliminary research elements for scholarly review and comment.

Operational Definition of Rural Homelessness

To perform valid research of the rural homeless, a cogent and reliable operational definition of the variable, *rural homelessness*, needs to be constructed. Because the term is of a bifilar nature, its definition requires a two-part analysis. First, the term *rural* needs a clear, unambiguous definition. Once that part of the definition is satisfied, then *homelessness* requires a separate objective clarification so that the requisite population is under focused scrutiny.

Rural

Reflection on the variable of *rural* reveals that it, too, is best conceptualized using a two-part definition. First, a number of operational definitions of rural currently exist. Most

definitions belong to various branches of the Federal government (see Table 2) and are generally di- or trichotomous. Because one major characteristic of rural is a low population density, the classification system of the U.S. Department of Health and Human Services (DHHS) offers a reasonable first component of a valid operational definition. The DHHS definition also identifies the size of county health care facilities and includes the maximum driving times to these facilities, so it will be helpful in the study of health disparities.

Table 2
Selected Federal Urban and Rural Classifications

Federal branch	Designation	Defining characteristics
Bureau of the Census	Urban area or urban cluster	Encompasses densely settled territory, which consists of: <ul style="list-style-type: none"> • core census block groups or blocks that have a ppsm of 1,000 and • surrounding census blocks that have overall density of 500 ppsm
	Rural	All territory, population, and housing units outside of urban areas and urban clusters
Office of Management & the Budget	Metropolitan	Counties with one or more cities of 50,000 or urbanized area \geq 50,000 and total area population of 100,000. Outlying counties included if economically tied to central counties, and "metropolitan character"
	Micropolitan	At least one urban cluster of at least 10,000 but less than 50,000
	Nonmetropolitan	Any remaining county not within MSA or micropolitan definitions
DHHS ^a	Urban	Counties of \geq 100 ppsm; large hospital or satellite \geq 100 beds; < 30-minute driving time
	Rural	Counties of 7-99 ppsm; small hospital with 25-100 beds; 30-59-minute driving time
	Frontier	Counties of \leq 6 ppsm; no hospital or \leq 25 beds; driving hazardous or \geq 60 minutes

Note. ppsm = people per square mile; MSA = Metropolitan Statistical Area; DHHS = U.S. Department of Health and Human Services.
^aBushy, 2000.

The second component of the rural definition involves the economic status of a researched geographic location because this is strongly associated with the occurrence of rural homelessness (Jensen, 2007). The Economic Research Service (ERS) of the U.S. Department of Agriculture maintains such a data set online. It tabulates the nation's state- and county-level unemployment rates and median household incomes. These data are indicative of the economic health of a county and are amenable as part of an operational definition of rural. These ERS tables also list what percentage of a state's mean household income level a county's level represents (ERS, 2007).

Thus, to designate a county as being rural under this operational definition would require: (a) meeting the characteristics of the DHHS' rural or frontier designation, (b) exceeding 125% of the state's unemployment rate, and (c) having a median household income \leq 75% of the state's.

Homelessness

As with the term rural, there are a number of conflicting definitions available for homelessness. First, the nation's homeless share a common Federal statutory definition. The U.S. Congress defined "homeless" in the sole major congressional legislation to address the homeless issue—the McKinney-Vento Homeless Assistance Act of 1987. Section 11302 of the act states a homeless person is:

- (1) an individual who lacks a fixed, regular, and adequate nighttime residence; and
- (2) an individual who has a primary nighttime residence that is—
 - (A) a supervised publicly or privately operated shelter designed to provide temporary living accommodations (including welfare hotels, congregate shelters, and transitional housing for the mentally ill);
 - (B) an institution that provides a temporary residence for individuals intended to be institutionalized; or
 - (C) a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings.

This statute describes the common notion of the typical urban homeless, but the evidence shows that the range of experience in rural homelessness is more expansive than what is defined here. For example, the rural homeless often "double or triple up" living with family or friends in congested or substandard housing in order to make it through a homeless episode (Bushy, 2000; NCH, 2007). Thus, the above definition is clearly too constrained to serve effectively as an all-inclusive operational definition for research into rural homelessness.

The Bureau of Primary Health Care (BPHC) of the Health and Services Administration has promulgated a more expansive definition. In 1997, the BPHC statutorily described a homeless person as:

An individual without permanent housing who may live on the streets; stay in a shelter, mission, single room occupancy facilities, abandoned building or vehicle; or in any other unstable or non-permanent situation. An individual may be considered homeless if that person is 'doubled up,' a term that refers to a situation where individuals are unable to maintain their housing situation and are forced to stay with a series of friends and/or extended family members. In addition, previously homeless individuals who are to be released from a prison or a hospital may be considered homeless if they do not have a stable housing situation to which they can return. A recognition of the instability of an individual's living arrangement is critical to the definition of homelessness. (p. 7)

This definition is precise, strong, and has support in the findings of empirical research focused on rural homelessness (Burt et al., 1999; Rollinson & Pardeck, 2006). As such, it, along with the rural operational definition described earlier will together serve as a two-pronged operational definition for studying the health disparities that burden the target population—the rural homeless.

Final Comments

Clearly, the millions of our nation's rural homeless are suffering empirical neglect. Consequently, they are also enduring policy and support services neglect because there is little objective evidence of their plight or needs. Now, with the country's impending administration change, the time is ripe for nursing to be the catalyst to address these embarrassing deficits. This chapter suggests one research element that can be instrumental in researching, among other things, the health disparities of the rural homeless and thus begin the resolution of this empirical neglect.

References

- Bureau of Primary Health Care. (1999). *Principles of practice: A clinical resource guide for health care for the homeless programs* (Health Care for the Homeless Program Assistance Letter 99–12). Retrieved November 17, 2007, from <http://bphc.hrsa.gov/policy/pal9912.htm>
- Burt, M., Aron, L., Douglas, T., Valente, J., Lee, E., & Iwen, B. (1999). *Homelessness: Programs and the people they serve* (Survey report). Washington, DC: Urban Institute, 1999. Retrieved November 17, 2007, from <http://www.urban.org/UploadedPDF/homelessness.pdf>
- Burt, M., Aron, L., & Lee, E. (2001). *Helping America's homeless: Emergency shelter or affordable housing?* Washington, DC: Urban Institute Press.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage Publications.
- Craft-Rosenberg, M., Powell, S. R., & Culp, K. (2000). Health status and resources of rural homeless women and children. *Western Journal of Nursing Research*, 22, 863-878.

- Cunningham, M., & Henry, M. (2007). *Homelessness counts*. Washington, DC: National Alliance to End Homeless. Retrieved November 26, 2007, from <http://www.endhomelessness.org/content/article/detail/1440>
- Economic Research Service, U.S. Department of Agriculture. (2007). *County-level unemployment and median household income*. Retrieved November 24, 2007, from <http://www.ers.usda.gov/Data/Unemployment/>
- First, R. J., Rife, J. C., & Toomey, B. G. (1994). Homelessness in rural areas: Causes, patterns, and trends, *Social Work*, 39, 97-108.
- Jensen, L. (2006). At the razor's edge: Building hope for America's rural poor. *Rural Realities*, 1, 1-7. Retrieved November 24, 2007, from <http://ruralsociology.org/pubs/RuralRealities/RuralRealities1-1.pdf>
- McKinney-Vento Homeless Assistance Act, 42 U.S.C. § 11301 *et seq.* (1987).
- National Alliance to End Homelessness. (2007). *Fact checker: Rural homelessness*. Washington, DC: Author. Retrieved November 24, 2007, from <http://www.endhomelessness.org/content/article/detail/1613>
- National Center for Health Statistics. (2001). *Health, United States, 2001 with urban and rural health chartbook* (GPO Stock No. 017-022-01509-9). Washington, DC: U.S. Government Publishing Office. Retrieved November 27, 2007, from <http://www.cdc.gov/nchs/data/hus/01.pdf>
- National Coalition for the Homeless. (2006). *Health care and homelessness: NCH Fact Sheet #8*. Retrieved October 22, 2007, from <http://www.nationalhomeless.org/publications/facts.html>
- National Coalition for the Homeless. (2007). *Rural homelessness: NCH Fact Sheet #11*. Retrieved October 22, 2007 from <http://www.nationalhomeless.org/publications/facts.html>
- Post, P. (2002). *Hard to reach: Rural homelessness and health care*. Nashville, TN: National Health Care for the Homeless Council. Retrieved November 23, 2007, from www.nhchc.org/Publications/RuralHomeless.pdf
- Rollinson, P., & Pardeck, J. (2006). *Homelessness in rural America: Policy and practice*. Binghamton, NY: Haworth Press.
- Sommers, H. (2001). *Homelessness in urban America: A review of the literature*. Berkeley, CA: Institute of Governmental Studies Press, University of California.
- U.S. Department of Housing and Urban Development. (2007). *The annual homeless assessment report to Congress*. Retrieved October 29, 2007, from http://www.huduser.org/publications/povsoc/annual_assess.html

6 Rural Invisible Older Adults

Gloria Ann Browning, RN, MSN

The meaning of *rural* depends on whom you ask, as well as the purposes for which the definition is needed. There are numerous diverse definitions for defining the word rural. For the purpose of this chapter, rural will be defined as an area with fewer than 2,500 residents and open territory with limited access to healthcare facilities. Seventy five percent of the counties in the United States have populations of fewer than 50,000 people; 24% have populations of fewer than 10,000. The Midwest and South are the most rural regions in the United States. Rural older adults are more likely to own their own homes, but the homes are of lesser value and in poor condition (Rural Policy Research Institute, 2002).

The purpose of this chapter is to discuss access to healthcare for the older adult in rural areas. Older adults, and in particular frail older adults, are vulnerable. These rural older adults are typically over the age of 75 years, and have co-occurring acute or chronic health problems, as well as functional disabilities. Their social networking from family and friends is frequently overextended or at risk of breaking down. Unfortunately, because they live in a rural, isolated area, and they are pretty much on their own, these older adults are treated as if they are invisible.

What can we do when the rural older adults are treated as if they are invisible, invisible from family, friends, neighbors, and even society? The presence of chronic diseases, poverty, and lack of access to transportation presents barriers to health care access in rural areas. Many individuals living in rural areas must travel hundreds of miles for medical attention. Health care access is further affected, when physical and mental impairments are involved (Ahmed, Lemkau, Nealeigh, & Mann, 2001; Bushy, 2000).

Background and Significance

Nearly 40% of all rural residents in the United States live in communities with no public transportation (Deweese, 1998). Nearly 80% of rural counties have no public transportation. Fifty-seven percent of rural poor older adults do not own a car. Not only is there no public transportation but many low- income rural older adults do not know how to drive, particularly if the older adult is female and lack funds to purchase and maintain an automobile (Dibartolo and McCrone, 2003). As a result, many low- income older adults rely on family and friends to meet their transportation needs. Usually these arrangements are unstable and unreliable for long-term outcomes (Bushy, 2000; Friedman, 2004; Li, 2006). Although, many older rural adults continue to depend heavily on family, friends, and neighbors that assistance is gradually decreasing because of the

rise of lower income individuals (Magilvy & Congdon, 2006). Without transportation, even a short distance to health care facilities can become an insurmountable problem. Transportation is one of the most important concerns reported by rural older adults when discussing issues concerning their health care needs (Arcury, Preisser, Gesler, & Powers 2005).

Substantive Analysis

The lack of transportation affects access to health care more than other barriers, such as income, social class, and age (Fitzpatrick, Powe, Cooper, Ives, & Robbins, 2004). Mobility is essential to quality of life for the older adult. This is usually equated to owning and driving an automobile and is particularly true for the rural older adult, who lives in mountainous and isolated areas. Because family may move away, friends die, and public transportation is nonexistent, rural older adults must rely on themselves (Johnson, 1995).

Access to transportation presents multiple problems for the older adult living in a rural area; not only must the older adult find a way to get to the health care visit, they must then follow up with transportation for repeated visits such as laboratory work, or X-rays. Additional constraints due to tests that require fasting prior to testing presents further dilemmas. Older adults living in rural areas who are poor or handicapped have even more of a disadvantage than their urban and suburban counterparts. For example, poor older adults in urban and suburban areas can reach healthcare facilities through public transportation. Urban handicapped adults can often find transportation and other devices that can accommodate their disabilities (Green-Hernandez, 2006). Older adults often tolerate symptoms, or restrict their activities in certain situations instead of seeking medical interventions that would have helped alleviate these symptoms.

Many of today's rural older adults were educated in an era in which preventive health care was not heard of (Salber, Greene, Feldman, & Hunter, 1976). According to Arbuthnot, Dawson, and Hansen-Ketchum (2007) the proportion of older adults in North America is expected to more than double by the end of the 21st century. Older adults today are healthier than those in previous generations. Because of the increased life expectancy, most women over the age of 65 years will outnumber their male companions. The more rural the location, the more likely older women, are to live alone, experience health-related concerns and have less access to health care than their urban counterparts. The barrier to health care resulting from lack of transportation exists in other countries, as well. Around the world the health status of older adults in rural areas is generally always worse than in urban areas (Shi and Stevens, 2005; Strasser, 2001).

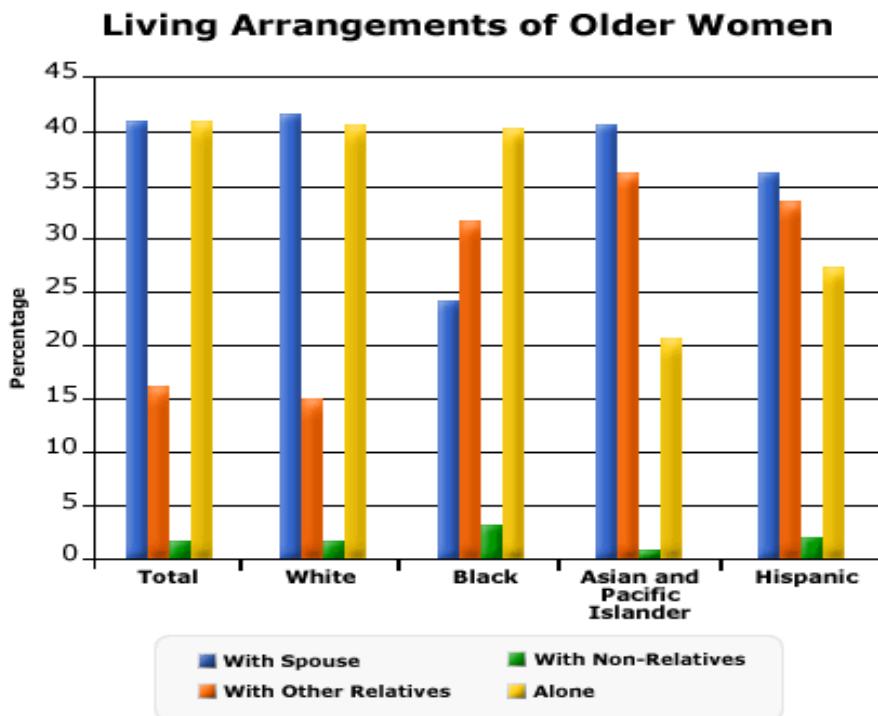
Rural older adults usually have fewer resources, longer travel distances to healthcare, limited means of transportation, and higher poverty rates (Elliott, Beattie, & Kaiffors, 2001; Zhang, Tao, & Anderson, 2001). In 1993, the Institute of Medicine defined access to health care as a timely use of ones health services to achieve the best outcome possible for the older adults living in rural areas and living without access to health care.

Rural older adults are poorer than those in urban and suburban areas. Rural employment is more seasonal, and the wage scales are lower. This results in fewer older adults being eligible for Social Security or receiving lower Social Security benefits because Social Security is tied to past wages. Pensions are less common. Poverty increases with increasing age. Poverty among rural older adults living alone is much greater than among married couple families (Rural Policy Research Institute, 2002). Living in an environment of poverty influences the way older adults perceive their health status. This will determine whether or not they even attempt to seek health care at times. Although older rural adults usually have characteristics of independence, hardiness, self-reliance, dignity, and self-sufficiency, they also tend to be more subjective and holistic in meeting their health needs.

Some older rural adults feel that “living on the land” allows them to connect with, and feel belonging to the land where they reside. This connectedness provides comfort, and defines their meaning of health. Some find value in the significance of being alive and continuing to function. Some older adults value their unique lifestyle. They focus on maintaining a high quality of life by promoting more holistic living. This affects the mind set for some seeking health care facilities (Rue, 2003). For many older rural adults, having strong ties with community and the land as well as the ability to live independently are important markers of quality of life. Some older adults associate their level of health and well-being with their level of independence while living on the land. The older adult takes pride in remaining in the homestead home and would not consider living anywhere else despite the challenges of rural living (Arbuthnot et al., 2007).

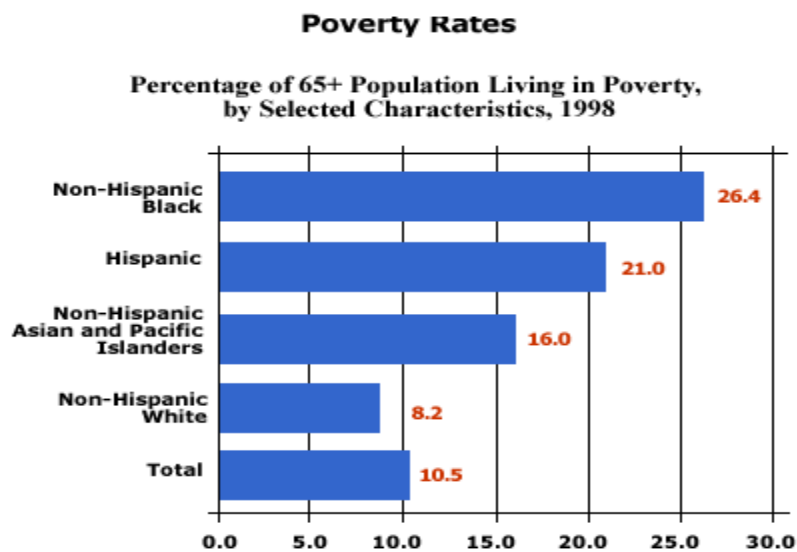
The physical isolation of rural residents often requires the older adult to possess a high level of self-sufficiency and most remain productive. Older adults in rural communities want to stay in a home where their children were raised, lifetime friends remain, and sense of home exists. Housing for the older adult however is not always safe or functional. Rural older adults have a reputation for independence and close community relationships, which can often translate into barriers to accessing health care in a timely manner. Although one might consider these traits positive, these traits can cause barriers in seeking needed health care attention (Collins, 2001). There is evidence that the older adult who lives in rural areas have higher levels of religiosity than their urban counterparts (Gesler, Arcury, & Koenig, 2006). Many of these older adults use their own traditional healers. A significant number of older women reside alone because they outlive their spouses and remain on the homestead property (Figure 1).

According to Gunderson, Menachemi, Brummel-Smith, and Brooks (2006) rural older adults are more likely to be sicker, poorer, and older than older adults living in urban areas. They are also more likely to have chronic diseases and to be working on a farm. The rural older adult remains more vulnerable to lack of health care services, regardless of the reason for not seeking health care. Pierce (2007) discussed the fact that rural older adults tend to use fewer health care services than their urban counterparts. Distance compounds the transportation issues, even if rural older adults are able to get a ride. Distances of over 10 miles to reach a health care clinic are common,



Source: Administration on Aging. *Achieving Cultural Competence: A Guidebook for Providers of Services to Older Americans and Their Families.*

Figure 1. Living arrangements of older women.



Source: Administration on Aging. *Achieving Cultural Competence: A Guidebook for Providers of Services to Older Americans and Their Families.*

Figure 2. Percentage of 65+ population living in poverty, by selected characteristics, 1998.

and a rural older adult will often compare the benefit of the care with the time it takes to access the care. This situation can also be compounded by weather and physical barriers, such as snowstorms, torrential rainstorms, the threat of impending tornadoes, and oppressive heat. These vulnerable populations are in need of immediate access to health care services, yet health care access is steadily decreasing (Bushy, 2000).

Poverty also plays a large part in access to health care and increases the risk of declining health status. Poor health was a higher risk if the older adult lived in poverty (Wen, Browning, & Cagney, 2003). Evans, Whitehead, Diderichsen, Bhuiya, and Wirth (2001) discussed the fact that poor older adults have a greater need for health care services and require more resources to meet their needs. Despite these needs, however the older adult living in a rural area has fewer health services and poorer quality of healthcare.

Interventions

What can we do to improve these problems? Financial resources must be uncovered, and these resources must be allocated to meet the needs of the vulnerable invisible older adults living in rural areas. State departments of transportation, human service agencies, private transportation providers and community groups can help rural areas address the transportation issues. States and localities can recruit volunteer drivers to operate car or vanpools. Also, they can implement bus routes that connect people to main bus routes for transporting to healthcare facilities. School buses for public transportation could be used when not in use.

States can use federal temporary assistance for needy families' funds to assist low-income individuals with transportation issues. The elderly disabilities program provides funding to states to help nonprofit groups meet the transportation needs of the rural elderly and those with disabilities (Friedman, 2004).

It is left up to state governments, health organizations, advocacy groups, and individuals to connect to this widening collection of inequities in our health care for rural older adults. Unfortunately, these issues are at times swept under the rug, and the rural older adults remain invisible. The needs of these older adults are growing, and there is no quick fix answer to meet their needs, especially in rural areas with seemingly fewer resources. There is a necessity for implementing interventions that can be used for the older adult who is medically underserved in society (Bushy, 2000).

Summary

By the 21st century, the number of older adults is expected to more than double. Despite widespread knowledge that the health care of this population is anticipated to be one of the most significant challenges of the next few decades, there are few participatory initiatives implemented to address the needs and concerns of the rural older adult. The rural elderly population is known to be vulnerable with respect to a lack of health care services and poor medical outcomes. The health status of the rural older adult is worse than the older adults living in urban areas. Geographical location presents an obstacle to

accessing health care resources. Critical factors between poverty and health are environmental health issues. Poverty and transportation issues are major barriers to accessing health care among rural older adults. Compared with their urban counterparts, rural older adults are less educated, have fewer financial resources, and experience more health problems (Li, 2006).

One of the most cited attributes of rural areas that affects healthcare is large distances between residences and health care services. Without transportation, access to health care is virtually impossible. Even if transportation is available, roads of poor quality, weather conditions, and the time factor are also barriers for the older adult to commute to health care facilities. For the older adult who has family or friends to assist with the transportation issues, travel to follow up appointments, and the fasting for laboratory tests are also concerns. Follow-up appointments continue to be missed or continually postponed until the appointment is skipped altogether.

Public transportation is practically nonexistent in the rural areas. In some areas, there might be public transportation but it is restricted to those with special conditions. Often the reservations for rides are made days to weeks in advance; this may work for schedule routine visits, but not for acute health visits. Public transportation programs are usually cut when budgets are reduced for the lack of clients they transport. These transportation vans programs are expensive to run, and usually are not implemented in most rural areas.

Poor older adults suffer higher rates of medical morbidity and receive disproportionately less medical care than those older adults living in urban areas. To health care providers, these older adults are recognized as people who do not come for care when they should, present to the emergency room for all of their care, do not follow medical recommendations, do not obtain preventive care, appear only when sick, and do not follow up with prescriptions. As health care providers, we need to realize that these behaviors may not be the result of being uninformed or uneducated about health care. Rather, these behaviors are the result of being unable to afford health care or being unable to get to the appointment. The delivery of health services to the rural older adult continues to be below national norms. Public financing has been and will continue to be a major factor in whether and how successful these programs are in reaching these rural invisible older adults. For as long as the rural older adults are isolated from the world, they will continue to remain invisible to all.

References

- Ahmed, S.M., Lemkau, J.P., Nealeigh, N., & Mann, B. (2001). Barriers to healthcare access in a non-elderly urban poor American population. *Health and Social Care in the Community*, 9(6), 445-453.
- Arbuthnot, E., Dawson, J., & Hansen-Ketchum. (2007). Senior women and rural living. *Journal of Rural Nursing and Health Care*, 7(1), 35-46.

- Arcury, T.A., Preisser, J.S., Gesler, W.M., & Powers, J.M. (2005). Access to transportation and health care utilization in a rural region. *The Journal of Rural Health, 21*(1), 31-38.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage Publications
- Collins, M.S. (2001). *Teaching/learning activities for rural community-based nursing practice*. State University of New York: Binghamton University
- Deweese, S. (1998). The drive to work: transportation issues and welfare reform in rural areas. Retrieved November 1, 2007, from <http://www.nado.org/rtoc/library/transpdf.pdf>
- Dibartolo, M.C., McCrone, S. (2003). Recruitment of rural community-dwelling older adults: barriers, challenges, and strategies. *Aging and Mental Health, 7*(2), 75-82.
- Elliott, B.A., Beattie, M.K., Kaiffors, S.E. (2001). Health needs of people living below poverty level. *Family Medical, 33*(5), 361-366.
- Evans, T., Whitehead, M., Diderichsen, F., Bhuiya, A., & Wirth, M. (2001). *Challenging Inequities in Health*. New York: Oxford University Press.
- Fitzpatrick, A.L., Powe, N.R., Cooper, L.S., Ives, D.G., & Robbins, J.A. (2004). Barriers to health care access among the elderly and who perceives them. *Research and Practice, 94*(10), 1788-1794.
- Friedman, P. (2004). Transportation needs in rural communities. Retrieved November 1, 2007, from <http://www.transportation.rurality.communities>
- Gesler, W., Arcury, T.A., & Koenig, H.G. (2006). An introduction to three studies of rural elderly people: effects of religion and culture on health. *Journal of Cross-Cultural Gerontology, 15* (1), 1-12.
- Green-Hernandez, C. (2006). Transportation challenges in rural healthcare. *The Nurse Practitioner: The American Journal of Primary Healthcare, 31*(12), 10.
- Gunderson, A., Menachemi, N., Brummel-Smith, K., & Brooks, R. (2006). Physicians who treat the elderly in rural Florida: Trends indicating concerns regarding access to care. *The Journal of Rural Health, 22*(3), 224-228.
- Institute of Medicine. (1993). *Access to health care in America*. Washington, DC: National Academy Press.
- Johnson, J.E. (1995). Rural elders and the decision to stop driving. *Journal of Community Health Nursing, 12*(3), 131-138.
- Li, H. (2006). Rural older adults' access barriers to in-home and community-based services. *Social Work Research, 30*(2), 109-118.
- Magilvy, J.K., Congdon, J.G. (2006). The crisis nature of health care transitions for rural older adults. *Public Health Nursing, 17*(5), 336-345.
- Pierce, C. (2007). Distance and access to health care for rural women with heart failure. *Journal of Rural Nursing and Health Care, 7*(1), 27-34.
- Rue, M. (2003). The meaning of health and well-being: voices from older rural women. *Journal of Rural and Remote Health Research, Education, Practice, and Policy* 192, 1-10.
- Rural Policy Research Institute. 2002. Retrieved November 1, 2007, from <http://www.ruralpolicy.htm>
- Salber, E.J., Greene, S.B., Feldman, J.J., & Hunter, G. (1976). Access to health care in a southern rural community. *Medical Care, 14*(12), 971-986.

- Shi, L., Stevens, G.D. (2005). Vulnerability and unmet health care needs. *Journal of General Intern Medical*, 20, 148-154.
- Strasser, R. (2001). Rural health around the world: challenges and solutions. *Family Practice*, 20(4), 457-463.
- Wen, M., Browning, C.R., & Cagney, K.A. (2003). Poverty, affluence, and income inequality: Neighborhood economic structure and its implications for health. *Social Science & Medicine*, 57, 843-860.
- Zang, P., Tao, G., & Anderson, L.A. (2001). Differences in access to health care services among adults in rural America by rural classification, categories, and age. *Australia Journal Rural Health*, 11, 64-72.

7 Rural Telemental Health Care: An Overview

Angela L. DelGrande, CNS, WHCNP, MSN

...the health of the individual is almost inseparable from the health of the larger community and...the health of every community in every State and territory determines the overall health status of the Nation.

U.S. Department of Health and Human Services (2000, p. 3)

The principle intent of the *Healthy People 2010* (HP2010) national initiative is to create momentum to achieve improved health for the individual, communities, and the nation as a whole by establishing objectives aimed at increasing the quality and years of a healthy life and eliminating health disparities (U.S. Department of Health and Human Services [USDHHS], 2000). Mental health is identified as a leading indicator of quality of life, with health disparities related to rural living considered a key health determinant. The Southwest Rural Health Research Center Office of Rural Health Policy identified several HP2010 goals and objectives, which posed significant challenges and priorities specific to rural health, leading to the development of *Rural Healthy People 2010: A Companion Document to Healthy People 2010* (Gamm, Hutchison, Dabney & Dorsey, 2003). Lack of access to health care and health care issues related to cardiac disease, diabetes mellitus, and mental health disorders were identified, respectively, as the highest and most pressing health care priorities for rural Americans.

The USDHHS (2001) developed a concomitant, in-depth statistical report on urban and rural health care trends and key issues, finding that people who lived in the most rural areas fared worse than their urban counterparts with regard to adult, child, and young adult mortality rates. Health status was also influenced by such factors as age, race, ethnicity, and regional location. The presence of poverty, regardless of urbanization level, was a key factor in decreased health status. The USDHHS document points to a lack of access to both preventative and specialty health care (e.g., 20% of Americans reside in rural counties, whereas only 9% of U.S. physicians provide rural health care) as prime factors for increased disease morbidity and hospitalization rates for residents in rural counties. This relationship between lack of access and higher morbidity was further supported by the Agency for Healthcare Research and Quality (2004), which found that rural residents compared with urban residents: a) reported fair to poor levels of health more frequently; b) had a higher incidence of chronic diseases, such as diabetes and heart disease; and c) decreased visits to health care providers for preventative health care. Lack of access to mental health care services for adults, the elderly, and children was cited by the RHP2010 group as a major health concern, stating that “among 1,253 smaller rural

counties with populations of 2,00 to 20,000, nearly three-fourths of these rural counties lack a psychiatrist, and 95% lack a child psychiatrist”(Gamm et al., 2003, p.185).

Models of care that addressed the issue of access to care were highlighted in RHP2010, with an emphasis on provision of mental health care for the uninsured/underinsured and methods for increasing the numbers of mental health professionals serving rural communities. Although use of telecommunications between the provider and patient was mentioned as a viable means for increasing access to direct care, none of the rural health care models specific to mental health that were highlighted mentioned use of telecommunication in this current context as a core element in their respective action plans.

With the advent of the Internet, improvements in electronic technology, and updates in the national communication infrastructure, the use of telecommunication technologies for the provision direct health care is rapidly gaining mainstream acceptance by the health care profession as a viable method for provision of direct mental health care (Davis, Boulger, Hovland, & Hoven, 2007; Smith & Allison, 2001). The Institute of Medicine (IOM; 2005) issued a report on rural health care quality entitled *Quality Through Collaboration: The Future of Rural Health Care*, identifying the development of a integrative, expansive information and communications infrastructure as a key element in the redesign of rural health care delivery to reach the goal of improving the quality of rural health at both the personal and community levels. This can be accomplished via a variety of applications, including: a) provision of instant access to health information and clinical resources for health care providers; b) efficient communication between health care systems, the patient, and the provider; c) management of chronic conditions via access to comprehensive chronic care programs for health care providers and health information and support group/networks for patients; d) efficient retrieval of patient health care information; and, e) distance consultation, patient monitoring, and direct care via real-time videoconferencing. This discussion will focus on how the last option, often referred to as telemental health care (TMHC; Smith & Allison, 2001) can be utilized to address the gaps in direct rural mental health care services.

Background and Significance

Rurality: Definition and Context

The agencies mentioned in the introduction utilized various definitions for the term *rural* based on federally developed taxonomies from a variety of sources, including the Bureau of the Census, the U.S. Department of Agriculture, and the Economic Research Service. These widely used federally designated definitions are dichotomous and stratified (i.e., rural/urban, metropolitan/nonmetropolitan), quantitative (i.e., population density), and/or identified by geographical location (Bushy, 2000; Ricketts, Johnson-Webb, & Taylor, 1998). These taxonomies provide only monodimensional definitions of rurality but because they are uniform, objective, and more amenable to use with quantitative calculations, they are heavily utilized to make health policy and legislative decisions that

impact the health and well-being of rural residents. In order to adequately explore rural health care and mental illness, the context that shapes rurality must also be considered.

A common perception of a rural community is that of a place that has low population density, remotely located from a highly populated city, with infrastructure deficits requiring travel over relatively long distances to obtain certain goods and services that are not available locally (Bushy, 2000; IOM, 2005). This perception appears intuitive and simple enough; however, it does not capture the complexities and unique characteristics that make up a rural community. The definition of rural is elusive and often depicted stereotypically (i.e., farmland, far away from city life, low population density) when in reality farming may not constitute the economy of a rural community, the area may have a fairly close proximity to an urban community, or may be composed of several thousand residents (Hart, Larson, & Lishner, 2005). The characteristics of a rural community are also tightly intertwined with the culture of that community. Rural characteristics may help shape a community's culture (e.g., the Amish way of living) and cultural characteristics of a population may define a rural community (e.g., Southwestern Mexican border town).

Hart et al. (2005) emphasized the importance of first specifying relevant elements of rurality associated with the phenomenon being examined and then using or developing a definition employing those elements. This view is also supported by du Plessis, Beshiri, Bollman, and Clemenson (2002), who posit that rurality should be defined by the scale and geographical dimensions that frame the research question at hand because the way it is defined will impact the results that are obtained. The point of making this distinction between the context and the definition of rurality is to emphasize that rural communities do have unique characteristics that can influence the development, implementation, and outcome of research, health policy, and health care provision. Health delivery models (in this case, telecommunication models aimed at providing direct mental health care for rural residents) that are developed without this awareness may be destined to fail at meeting goals to improve access to health care and increase the health status of both the population and the individual.

Mental Illness in the United States

Mental health is characterized by the ability to productively function in life settings and form fulfilling relationships, while possessing a sense of well-being along with the ability to cope effectively with life stressors and adversity. The term *mental illness* encompasses all diagnosable mental disorders (USDHHS, 2000; Herrman, Saxena, & Moodie, 2005). The American Psychiatric Association (APA) provides a general definition for the concept of a mental disorder as a “clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress...or disability...or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom” (APA, 2000, p. xxxi) Although mental illness impacts people across the lifespan (i.e., children, adolescents, and adults), the focus for this discussion will be limited to disorders experienced in the adult population.

According to the National Institute of Mental Health (NIMH; 2007), one in four adults (approximately 57 million or 26% of the population) older than age 18 in the United States exhibit a 12-month prevalence of symptoms consistent with a diagnosable mental illness. This prevalence is highest for anxiety disorders (18.1%) and mood disorders (9.5%), compared with 1% for schizophrenia. The range of disorder severity is broad, with approximately 6% suffering from severe mental illness. The overall incidence of psychiatric comorbidity (i.e., two or more mental disorders) is approximately 45% (NIMH, 2007). Data analysis from the National Comorbidity Study-Replication (Kessler et al., 2003), a nationally representative face-to-face household mental health survey (n = 9,090) found that 72.1% of respondents with a lifetime prevalence of major depressive disorder and 65% with 12-month prevalence of a major depressive disorder met *Diagnostic and Statistical Manual of Mental Disorder* (APA, 2000) criteria for at least one other disorder. Comorbidities of anxiety, substance use, and impulse control disorders were most prominent for both groups. According to Carroll-Ghosh, Victor, and Bourgeois, (2003), 90% of individuals who complete suicide had diagnosable psychiatric conditions at the time of their deaths.

Major depressive disorder is the leading cause of disability for persons between the ages of 15 and 44, with a 9.5% 1-year prevalence (NIMH, 2007) and associated with more than two thirds of suicides per year (USDHHS, 2000). The World Health Organization (WHO; 2007) identifies depression as the leading cause of disability due to mental illness worldwide in terms of years lived with disability, the loss of potential life years due to premature mortality, and loss of productive life secondary to disability (i.e., disability adjusted life years), with an estimated 150 million people suffering from depression.

Merikangas et al. (2007) conducted direct interviews with a nationally represented sample of adults (n = 5,692) to study the relative effects of physical and mental morbidity on role disability (i.e., the number of days in the past 30 days that a person was unable to work or carry out daily roles due to physical or mental health conditions or drug/alcohol use experienced in the last 12 months). Musculoskeletal conditions and depression accounted for the largest effects on disability days at both the individual and population levels. Workers with major depression averaged 8.4 hours of lost productive time during work hours because of somatic complaints commonly associated with depression compared with the expected loss of 1.5 hours for nondepressed workers (Stewart, Ricci, Chee, Hahn, & Morganstein 2003).

Kessler et al. (2003) found that 87.4% of respondents with a 12-month major depressive disorder prevalence reported experiencing moderate to severe role impairment, with impairment in the social domain surpassing that of the work domain as depression severity levels increased. Respondents also reported being unable to function at work or maintain normal activity levels a mean of 35.2 days during the past year due to depression. Although the majority of diagnosable mental disorders carry risk for disability secondary to illness severity, depression is consistently used as a benchmark or priority diagnosis for development of quality of care measures and exploration of mental health care access issues. Characteristics of depression that prompt this focus include: a) a high prevalence relative to other psychiatric disorders despite trends toward

underdiagnosis, b) the propensity for causing long-term disability and increased suicide risks, and c) the presence of diagnostic reliability and pharmacotherapeutic treatment effectiveness (Boland, & Keller, 2003; Dubovsky, Davies, & Dubovsky, 2003; NIMH, 2007; WHO, 2007). As this discussion continues, an emphasis on depression may at times occur in keeping with the previously mentioned trend, but this should not be misinterpreted as an indication that rural residents with depression require or deserve more extensive or priority mental health care services over those with other diagnosable disorders.

Rurality and Mental Illness

Although general comparisons in prevalence rates for mental disorders between rural and urban populations have provided inconsistent findings, due in part to issues of methodology secondary to the complexity of sociodemographic, cultural, ethnic, economic characteristics that define communities (Wang, 2004), some compelling differences do exist. When correlates between the prevalence of mood and anxiety disorder and sociodemographic variables were analyzed among urban, rural, and metropolitan residents via a nationally representative sample, differences were noted with regard to gender, ethnicity/race, and socioeconomic status, but they were not significantly associated with the urbanization level (Diala & Muntaner, 2003). The only exception to this was an increased prevalence of mood disorders experienced by rural men, which the authors posit may be due to increasing financial strains particular to rural economic settings.

van Os, Hanssen, Bijl, and Vollebergh (2001) found that levels of psychosis increased as the level of urbanization increased and suggested that urban living created a vulnerability for development of psychosis compared with rural life. A disturbing trend that has held steady over the last decade is the high prevalence of suicide in rural areas. Suicide rates for adult males and Native American youth in rural settings are higher than for their urban counterparts. In addition, as the levels of urbanization decrease, suicide rates appear to increase (USDHHS, 2001; Mohatt, Bradley, Adams, & Morris, 2005; RHP2010). One striking statistic provided by USDHHS (2001) showed that the 1996-1998 suicide rates for men in the rural Western region of the United States was 80% higher than that for men living in metropolitan counties in the same region.

Reuter, Holm, Burzette, Jeong Kim, and Conger (2007) conducted a study to determine the prevalence rates of psychiatric disorders, psychiatric comorbidity, and service utilization for rural young adults aged 19-23 and found that 61% of the participants reported experiencing at least one lifetime disorder and 25% reported a 12-month prevalence, with only 42% seeking services from any health care professional and only 27% seeking mental health services. Compared with national trends, these findings did not differ significantly based on the level of urbanization. One difference of note, however, was the rate of alcohol use in both male and female young adults. The lifetime prevalence of alcohol disorders was 37.8%, with a 12-month prevalence of 13.8% and average age of onset at 18.6 years. Compared with similar metropolitan age groups, both lifetime and 12-month prevalences were higher for the rural group.

Borders and Booth (2007) compared alcohol use by participants in nationally representative data from the National Epidemiologic Survey on Alcohol and Related Conditions, stratifying the results by region and urbanization, and found that the odds of having an alcohol disorder were in general higher for rural versus suburban areas but had odds similar to those of urban areas. Levels of abstinence were higher in the rural South, with the urban and rural Midwest region having a higher prevalence of problematic alcohol consumption. Although not associated exclusively with having a diagnosis for an alcohol disorder, other health-related issues may ensue due to excessive drinking, including: a) increased risk for morbidity and mortality secondary to driving while intoxicated; b) increased risk of violence, including homicide; and c) increased risk of attempting or completing suicide (USDHHS, 2000).

Certain stressors specific to rural life could precipitate the development of mental illness or increase the severity of illness. The economic fragility in rural areas, particularly among those with an economy based on agriculture, can intensify decompensation and sequelae of mental disorders. Severe economic hardship despite working hard can also lead to feelings of depression and hopelessness (Mohatt et al., 2005). Reuter et al. (2007) posited that the high prevalence of alcohol use in rural young adults may be associated with developmental issues, such as having limited opportunities for educational growth and employment advancement by remaining at home, which may in turn trigger feelings of depression and hopelessness, leading to excessive drinking.

Rurality and Barriers to Access

A 35-year-old man drove 200 miles to an Albuquerque, N.M., emergency room with a .22 caliber pistol in his hand because he felt suicidal. He stated that he had spent the night in a field near his home, repeatedly holding the gun to his head and then "losing nerve" and shooting into the sky. The man said that two weeks earlier he himself had found a suicide victim, and since that time, he could not rid himself of the idea of killing himself. He reported nightmares, intrusive thoughts, irritability, avoidance and anxiety. He had not sought care because he didn't want to be identified going to the rural "mental clinic" and had little money to go elsewhere. "Everyone watches who goes in there," he said. "My mom works down the street. If you go in, they think you are crazy. I didn't want them to know I was weak. I didn't want to lose my job. I didn't want the whole town to know I was nuts." (Weiss-Roberts, Battaglia, & Epstein, 1999, p. 499)

The above excerpt illustrates how certain life stressors and community characteristics specific to rurality can create barriers to care and negatively impact mental health. Rural Healthy People 2010 (USDHHS, 2000) identified three main factors that create rural barriers to mental health care: 1) limited access to mental health care providers; 2) lack of professional mental health training, expertise, and health care coordination among providers who live and/or practice in rural settings; and 3) decreased utilization of mental health services that are available due to stigma associated with mental illness or limited awareness of the types and symptoms of mental disorders.

As mentioned previously, a shortage of mental health providers for rural areas continues to be an ongoing problem. A recent American Psychological Association public policy update on rural mental health care needs revealed that 85% of the 1,669 federally designated shortage areas for mental health professionals are considered rural (Whiting, 2006). The Council on Graduate Medical Education (Health Resources and Services Administration [HRSA], 1998) calls this tendency for physicians to practice in urban and suburban areas a geographical maldistribution of physicians. This maldistribution is due in part to recruitment issues related to salary, concerns regarding professional isolation, lack of educational and employment opportunities for families, lack of clinical support, and the decision to pursue a specialty practice that is most often centered in urban areas (IOM, 2005; Rabinowitz & Paynter, 2002).

Fox, Blank, Rovnyak and Barnett (2001) surveyed respondents with depression, anxiety, or alcohol disorders in an impoverished rural community regarding barriers to seeking mental health care. The authors found that the most frequent barriers were cost of care, lack of insurance, clinic or office hours not convenient, and health care not available when needed. There are also fewer hospital beds, nurses, and medical specialists per capita for rural residents compared with urban residents (Blumenthal & Kagen, 2002; USDHHS, 2001).

The National Rural Health Association (NRHA) (1999) noted that the lack of emergency psychiatric services was higher for rural versus nonrural communities (37% and 18.6%, respectively). Lack of adequate health insurance is also a major barrier to access to mental health care due in large part to a rural economic infrastructure (i.e., small businesses cannot afford to not provide employee health insurance), unemployment, and financial strains for farmers that preclude them from purchasing costly individual health insurance coverage (IOM, 2005; Mohatt et al., 2005). The need to travel in order to seek appropriate care is also considered a barrier, in particular, among the elderly population, children, and those with special needs due to a lack of personal or public transportation, limited finances, and limited community resources (Mohatt et al., 2005; Stockdill & Ciarlo, 2000)

Primary care physicians (PCPs; i.e., general practitioners) provide the majority of health care in rural areas, and as such provide first-line diagnosis and treatment for mental health problems. Unfortunately, many who seek mental health care remain undiagnosed because appropriate, up-to-date training and continuing education required to properly diagnose and treat mental illness is lacking (Mohatt et al., 2005; NRHA, 1999; Whiting, 2006). The ability for PCPs to consult quickly and efficiently with a mental health specialist, locally or in urban areas, does exist but is still not the norm, and although development of integrated health care models to provide both primary and specialty services would be ideal, the development and implementation process is a complicated endeavor for rural health care providers and systems to undertake (Mohatt et al., 2005).

The first two barriers are external and as such, some improvement has been made in terms of increasing access to care via federally subsidized programs, health grants, and

career incentives. The third barrier differs in that it stems from internal perceptions of mental illness based on ingrained individual and communal ethnic beliefs and cultural mores that are difficult to change. Stigma related to mental illness may be strong enough to prevent a person from seeking help. Rural residents are less likely than their urban counterparts to seek care from a mental health professional (Wang, 2004), and if health care is sought, it is under the guise of a physical complaint, which often leads to underdiagnosis and undertreatment for mental health disorders (NRHA, 1999).

Fox et al. (2001) found that rural residents often relied on help from friends and family and avoided seeking care from a mental health professional all together. The authors also found that despite provision of education regarding rural barriers to health care and the importance of getting help for mental health disorders, the motivation to seek help for participants did not increase because the perception for needing help was not present. There were also issues related to the close proximity patients had to local rural health care providers in that there may be mutual contact in a variety of contexts outside the provider–patient relationship, which adversely affects the dynamics (Mohatt et al., 2005). Warner et al. (2005) surveyed mental health providers in Alaska and New Mexico who related that patients did have concerns regarding patient confidentiality and had a tendency to avoid seeking care because of the potential embarrassment over discussion of stigmatizing illnesses.

Additional characteristics of rural living can also create potential barriers to mental health care services. Historically, a lack of political clout due to rural status diminished the ability to affect rural health policy development, but the climate has changed in recent years with the agenda of rural health care disparities gaining priority status within state and governmental health agencies (Mohatt et al., 2005). The majority of impoverished counties in the United States and 67% of substandard housing are located in areas identified as nonmetropolitan, with higher rates of unemployment and poverty levels compared with metropolitan areas (Mohatt et al., 2005; USDHHS, 2001). Certain global rural or *Gemeinschaft* characteristics can act as both barriers to mental health services and strengths for dealing with mental illness (Brown & Herrick, 2002). These characteristics include self-reliance, which promotes self-care yet may lead to avoidance of mental health services; tolerance of aberrant behavior and acceptance of poor health; and strong kinship and dense social relationships, which provide support that may end up replacing professional care and pose confidentiality and privacy issues.

Telemental Health Care

Past and Present

The shortage of mental health care providers serving rural communities has been long-standing, and despite efforts to alleviate this problem, it is not a stretch of the imagination to predict that this shortage will continue unless new approaches for addressing delivery of care issues are considered. The use of videocommunications technology for provision of direct care services is one approach that is receiving considerable attention as a viable

means for addressing issues of direct mental health care for rural populations (Davis et al., 2007; Neuberger, Payne, & Wakefield, 2001).

Although TMHC is commonly considered a recent phenomenon that arose with the advent of expanding computer technology and the Internet that occurred in the 1990s, it actually has roots dating back to the 1950s, when a psychiatric unit in Nebraska linked up to a rural clinic via an interactive television link. This set-up consisted of a one-way closed-circuit system in which lectures and instructional sessions were captured on small black-and-white televisions for viewing over the course of 1 year by more than 1,000 medical students. This program was expanded and federally funded through the 1960s and followed by other more sophisticated TMHC programs that lasted through the early 1970s (Smith & Allison, 1998).

In the 1960s and early 1970s, the National Aeronautics and Space Administration (NASA) provided satellite support to a rural project aimed at providing telemedicine services to remote areas in Appalachia, Alaska, and the Rocky Mountains. These and other demonstration efforts using telecommunications to provide direct care and consultation were successfully implemented using federally supported assistance, but the complexity required to sustain the programs along with shrinking governmental funding and the inability to collect third-party payment precluded continuation of such programs, even though they proved that telemedicine was feasible (Neuberger et al., 2001). When both the Internet and advanced communication technology with the ability to compress data and send it long distances at high speed appeared in the early 1990s, the interest in telemedicine re-emerged. The number of programs that utilized telemedicine in the U.S. rose from just three in 1989 to several hundred by the year 2000, as did federal funding, leading to the development of a wide array of health care services that benefited rural populations involved in such programs (Davis et al., 2007; Smith & Allison, 1998).

The current climate at both state and federal governmental levels suggests that the concept of telemedicine as a mainstream avenue for the provision of rural health care has finally arrived. The IOM Committee on the Future of Rural Health Care (IOM, 2005) recommended that appropriate steps be taken to assure Internet access for rural regions along with expanded health care applications that could be implemented by both providers and consumers. Specific committee recommendations include: a) coordination and expansion of broadband networks into rural areas by the appropriate federal agencies, b) prohibition of surcharges by local telecommunications companies for the transfer of health information, and c) development of a 5-year plan, starting in 2006, which would establish communications technology infrastructures for five rural areas.

The Veteran's Administration Hospital system, an early leader in the use of rural telemedicine, developed a toolkit for planning and implementation a TMHC program that could offer: a) provider-to-provider distance consultation, b) provider-to-patient evaluation in collaboration with the proximate treating clinician, and c) ongoing outpatient treatment, including psychotherapy, psychopharmacologic management, and group/family therapies (Godleski, Darkins, & Lehmann, 2003).

Federal grants for research on and implementation of telemedicine programs that provide direct services are increasing in numbers, as are monetary amounts from organizations such as the Office of Rural Mental Health Research, the National Institute of Nursing Research, and the Federal Communications Commission (FCC; Neuberger et al., 2001). On November 19, 2007, the FCC launched the Rural Health Care pilot program as dictated by the 2006 Pilot Program Order, which was established to “stimulate deployment of the broadband infrastructure necessary to support innovative telehealth and, in particular, telemedicine services to those areas of the country where the need for those benefits is most acute” (FCC, 2007, p. 2). Participants selected for the program are eligible for support of up to 85% of the costs associated with developing regional or state broadband networks along with the associated telecommunications and information. The FCC agreed to a 3-year commitment period, with \$139 million in funding for each year. The FCC received 81 applicants, who represented 6,800 health care providers. Sixty-nine applicants representing 42 states and 3 U.S. territories that met the criteria for advancing regional telemedicine/telehealth services in rural areas with health disparities were chosen for the program.

Telemental Health Technology

Although an in-depth discussion on the technical requirements for providing telecommunications service is beyond the scope of this discussion, a brief overview of the technology required to provide TMHC is in order. An array of transmission services and technology can be applied to provide the ability to have real-time person-to-person audio-video communication. Telecommunication signals can be transferred via telephone lines, cable, and wireless networks. More advanced broadband transmission of data can occur via the use of an integrated services digital network (ISDN), which allows voice, video, and data to be sent simultaneously. Because many rural areas do not have ISDN capabilities, telephone services must be used, which can be costly due to fees and surcharges. Hopefully, with the assistance of the FCC grant program mentioned earlier, increasing numbers of rural areas will have broadband capabilities in the next 3 years. Equipment used to capture and send audiovisual signals and data (e.g., video monitors and cameras, microphones, Web cameras, and computers) can be simple or elaborate but must be user-friendly and reliable (Davis et al., 2007; Smith & Allison, 1998).

Breaking Down Barriers

Telemental health technologies are well suited to address the three problems delineated by RHP2010 presented earlier in this discussion (limited access to mental health providers, lack of professional education related to care of the mentally ill, and issues related to the stigma and lack of awareness of mental illness). The same mental health services that are provided face to face can be provided via TMHC technology. Services provided by a distance mental health professional (DMHP) include: a) patient evaluations, crisis response, mental status evaluations; b) medication management and therapy for individuals, groups, and families; and c) treatment planning, court commitment hearings, and case conferences (Godleski et al., 2003; Smith & Allison, 1998). A benefit of not having the provider in the same room as the patient is the ability

to closely monitor behavioral patterns of the patient without causing discomfort or invading their personal space (Smith & Allison, 1998). Primary care providers evaluating patients who are experiencing a psychiatric emergency can utilize TMHC services to obtain a timely evaluation from a DMHP in order to determine medication management and the need for inpatient stabilization (Godleski et al., 2003; Smith & Allison, 1998). This would eliminate the need for the PCP to unnecessarily refer a patient in crisis to a health care facility that provides psychiatric emergency care, which may require traveling a long distance (Godleski et al., 2003). TMHC can improve continuity of care for psychiatric medication management, which may lead to improved medication compliance and a more accurate evaluation of therapeutic efficaciousness (Smith & Allison, 1998).

This technology can also be used to provide continuing medical education for PCPs who follow patients with mental disorders. Timely case consultation between PCPs and DMHPs, combined with the ability to share pertinent health information documentation, can improve the quality of care and provide additional training opportunities for both the PCP and DMHP (Godleski et al., 2003). Hilty, Yellowlees, and Nesbitt (2006) examined the satisfaction levels and changes in practice for PCPs who utilized psychiatrists via a TMHC model over the course of 400 collaborative consultations/treatment sessions with rural patients. They found that as time progressed, the PCPs became increasingly satisfied with the collaborative TMHC arrangement. Confidence in diagnosis and medication management, along with requests from the PCPs for collaborative treatment planning, increased over time. This application of TMHC was a core element in many of the model programs highlighted in the RHP2010 publication.

Issues related to mental health stigma and lack of awareness regarding mental health disorders may be diminished by the use of TMHC services. A comfort zone leading to increased self-disclosure may develop secondary to not being in the same room with a mental health professional (Hilty, Liu, Marks, & Callahan, 2003; Smith & Allison, 1998). The use of TMHC appears to foster continuity of care over of time, with increased satisfaction levels noted for both the provider and patient (Hilty et al., 2003). Although research on the efficacy of TMHC is increasing, questions of effectiveness compared with face-to-face care (FTFC) remain. Grady and Melcer (2005) conducted a retrospective study to compare outcomes based on therapy format (i.e., TMHC vs. FTFC) for two groups made up of veterans and active-duty personnel who sought psychiatric outpatient care through two remotely located military treatment facilities. Sociodemographics were comparable for both groups, with the exception of branch of service (73% of FTFC = Navy, 78% of TMHC = Army). The majority were being treated for mood and anxiety disorders. The authors found that the Global Assessment of Functioning (GAF) scores, medication compliance, and consistency of complying with follow-up appointments were significantly better for the TMHC group (n = 51) compared with the FTFC group (n = 30). The higher GAF scores for the TMHC group were surprising to the authors, as they hypothesized that the scores would remain the same. They posited that the GAF scores may have been increased due to increased treatment compliance rates for the TMHC group. Hilty et al., (2003) conducted a review of the literature on telepsychiatry and found that overall patient satisfaction was high, even if technical difficulties were experienced. Reasons for high satisfaction levels included less

travel time required to obtain services, reduced work absences, reduced waiting time, and more choice and control over health care matters. Similar findings were noted by Edwards & Patel (2003) in a survey of telemedicine effectiveness for rural areas in the state of Maine.

Telemental Health Care: Issues

Issues that have been identified with regard to the implementation of TMHC appear to fall into two main categories: technical problems and problems with policy issues related to funding. Technical issues delineated by Smith and Allison (1998) included: a) minimal technical support available on the rural end of the transmission, which can cause frustration and decrease the inclination to use the system; and b) low bandwidth may negatively affect the concept of presence (i.e., the feeling that a mediated experience is authentic) due to lags in audio response time or poor video transmissions.

Despite the increased endorsement of the value of TMHC services, several issues continue to cause difficulties with development and implementation. Problems with payment reimbursement of TMHC services and managing upfront capital start-up costs remain a constant issue. Concern regarding potential health care information privacy lapses during transmission have yet to be eased. Finally, despite an increase in literature supporting the efficaciousness, improved quality of care, and increased patient satisfaction resulting from the implementation of TMHC, a lack of acceptance for the technology still exists within the health profession (Neuberger et al., 2001).

Concluding Thoughts

One of the main factors leading to a shortage of mental health providers is the fact that for many reasons that were explored earlier in the discussion, living in a rural setting is simply not desirable. Telemental health technology enables providers to care for patients in rural settings without having to relocate permanently or travel regularly to that locale. Some critics may argue that in order to provide quality health care, one must be able to understand the characteristics of a community by actually being there, preferably as a resident. Research supports that a health care provider who is also a member of a community can improve the quality of care and both personal and community health (Gamm et al., 2003). That cannot be disputed. However, the fact remains that a critical mental health care disparity exists in rural America, and although there are programs in place that aim to increase the number of health care providers that opt to live and work in rural communities, the chances that this provider maldistribution will quickly be resolved are probably nil. As we speak, someone in a rural community is committing suicide, getting into a motor vehicle accident because of alcohol use, experiencing a psychiatric emergency with no place to go for help, or slowly becoming increasingly mentally ill due to a lack of proper diagnosis or treatment. If TMHC services had been available in any of these scenarios, it is conceivable that the poor outcomes described might have been avoided. When telemental health technology is fully embraced as a viable form of direct patient care by the health profession, third-party insurance reimbursement entities, health policy leaders, politicians, and most importantly, the residents of rural America, the

mental health disparities that are currently in existence will start to diminish, even if provider maldistribution does not follow suit. In keeping with the RHP2010 quotation at the beginning of this chapter, telemental health care is a viable means for improving the health of rural individuals in the community in which they live and ultimately in the nation as a whole.

References

- Agency for Healthcare Research and Quality. (2004). *Fact sheet. Health care disparities in rural areas. Selected findings from the 2004 National healthcare disparities report*. Department of Health & Human Services. Retrieved November 21, 2007, from <http://www.ahrq.gov/research/ruraldisp/ruraldispar.pdf>
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington DC: Author.
- Boland, R., & Keller, M. (2003). Treatment of depression. In A. Schatzber & C. Nemeroff (Eds.), *Essentials of clinical psychopharmacology*. Retrieved from Psychiatry Online: [http://hestia.unm.edu/search/?XEssentials%20of%20clinical%20psychopharmacology&+and+d:\(ebook\)&SORT=D/XEssentials%20of%20clinical%20psychopharmacology&+and+d:\(ebook\)&SORT=D&SUBKEY=Essentials%20of%20clinical%20psychopharmacology/1,1,1,B/1856~b1094829&FF=XEssentials%20of%20clinical%20psychopharmacology&+and+d:\(ebook\)&SORT=DZ&1,1,,1,0](http://hestia.unm.edu/search/?XEssentials%20of%20clinical%20psychopharmacology&+and+d:(ebook)&SORT=D/XEssentials%20of%20clinical%20psychopharmacology&+and+d:(ebook)&SORT=D&SUBKEY=Essentials%20of%20clinical%20psychopharmacology/1,1,1,B/1856~b1094829&FF=XEssentials%20of%20clinical%20psychopharmacology&+and+d:(ebook)&SORT=DZ&1,1,,1,0)
- Borders, T., & Booth, B. (2007, Fall). Rural, suburban, and urban variations in alcohol consumption in the United States: Findings from the National Epidemiologic Survey on Alcohol and Related Conditions. *National Rural Health Association*, 314-321.
- Blumenthal, S., & Kagen, J. (2002). The effects of socioeconomic status on health in rural and urban America. *Journal of the American Medical Association, Medical Students*, 287(1), 109.
- Brown, H., & Herrick, CA. (2002). From the guest editors - Rural America: A call for nurses to address mental health issues. *Issues in Mental Health Nursing*, 23(3), 183-189.
- Bushy, A. (2000) *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage.
- Carroll-Gosh, T., Victor, B., & Bourgeois, J. (2003). Suicide. In R. Hales & S. Yudofsky, (Eds.), *Textbook of clinical psychiatry* (4th ed.). Retrieved from Psychiatry Online: <http://psychiatryonline.com.libproxy.unm.edu/content.aspx?aID=96979>.
- Davis, G., Boulger, J., Hovland, J., & Hoven, N. (2007). The integration of telemental health service into rural primary medical care. *Journal of Agricultural Safety and Health*, 13(3), 237-246.
- Diala, C., & Muntaner, C. (2003). Mood and anxiety disorders among rural, urban, and metropolitan residents in the United States. *Community Mental Health Journal*, 39(3), 239-252.

- Dubovsky, S., Davies, R., & Dubovsky, A. (2003). Mood disorders. In R. Hales & S. Yudofsky (Eds.), *Textbook of clinical psychiatry* (4th ed.). Retrieved from Psychiatry Online: <http://psychiatryonline.com.libproxy.unm.edu/content.aspx?aID=74424>
- du Plessis, V., Beshiri, R., Bollman, R., & Clemenson, H. (2002). *Definitions of "rural"* (Working Paper No. 61). Statistics Canada, Agriculture Division. Retrieved October 20, 2007, from <http://www.statcan.ca/english/research/21-601-MIE/2002061/21-601-MIE2002061.pdf>
- Edwards, M., & Patel, A. (2003). Telemedicine in the State of Maine: A model for growth driven by rural needs. *Telemedicine Journal and e-Health*, 9(1), 25-39.
- Federal Communications Commission. (2007). *Rural health support mechanism* (Order WC Docket No. 02-60. FCC 07-198). Retrieved November 21, 2007, from <http://www.fcc.gov/cgb/rural/rhcp.html>
- Fox, J., Blank, M., Rovnyak, V., & Barnett, R. (2001). Barriers to help seeking for mental health disorders in a rural impoverished population. *Community Mental Health Journal*, 37(5), 421-436.
- Gamm, L., Hutchison, L., Dabney, B., & Dorsey, A. (2003). *Rural Healthy People 2010: A companion document to Health People 2010*. College Station, TX: The Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center.
- Godleski, L., Darkins, A., & Lehmann, L. (2003). *Telemental Health Toolkit. Veterans Health Administration*. Retrieved November 21, 2007, from http://www.va.gov/OCC/toolkits/telementalhealth/vha_telemental_health_toolkit_06-22-03.pdf
- Grady, B., & Melcer, T. (2005). A retrospective evaluation of telemental healthcare services for remote military populations. *Telemedicine and e-Health*, 11(5), 551-558.
- Hart, G., Larson, E., & Lishner, D. (2005) Rural definitions for health policy and researcher. *American Journal of Public Health*, 95(7), 1149-1155.
- Health Resources and Services Administration. (1998) Physician distribution and health care challenges in rural and inner city areas. *Council on Graduate Medical Education Tenth Report*. Retrieved November 21, 2007, from <http://www.ask.hrsa.gov/detail.cfm?PubID=BHP00104>
- Herrman, H., Saxena, S., & Moodie, R. (2005). *Promoting mental health. Concepts, emerging evidence, practice*. World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation and the University of Melbourne. Geneva, Switzerland: WHO Press.
- Hilty, D., Liu, W., Marks, S., & Callahan, E.(2003). The effectiveness of telepsychiatry: A review. *Canadian Psychiatric Association Bulletin*, 35(3), 10-17.
- Hilty, D., Yellowlees, P., & Nesbitt, T. (2006). Evolution of telepsychiatry to rural sites: Changes over time in types of referral and in primary care providers' knowledge, skills and satisfaction. *General Hospital Psychiatry*, 28, 367-373.
- Institute of Medicine. (2005). *Quality through collaboration: The future of rural health*. Washington DC: National Academy Press.
- W. K. Kellogg Foundation (2002). *Perceptions of rural America*. Battle Creek MI: W. K. Kellogg Foundation.

- Kessler, R., Berglund, P., Demler, O., Jin, R., Koretz, D., Merikangas, K., et al. (2003). The epidemiology of major depressive disorder. Results from the National Comorbidity Survey Replication (NCS-R). *Journal of the American Medical Association*, 289, 3095-3105.
- Mohatt, D., Bradley, M., Adams, S., & Morris, C. (2005). Mental health and rural America: 1994-2005. U.S. Department of Health and Human Services, Health Resources and Services Administration, Office of Rural Health Policy. Washington DC: U.S. Government Printing Office.
- Merikangas, K., Ames, M., Cui, L., Stang, P., Bedirhan Ustan, T., Von Korff, M., et al. (2007). The impact of comorbidity of mental and physical conditions on role disability in the US adult household population. *Archives of General Psychiatry*, 64(10), 1180-1188.
- National Institute of Mental Health. (2007). *Health and outreach. statistics*. Retrieved November 25, 2007, from <http://www.nimh.nih.gov/health/statistics/index.shtml>
- Neuberger, N., Payne, M., & Wakefield, M. (2001). *Rural health care and the Internet: issues and opportunities for using interactive communications to improve rural health care services. A report on a meeting convened by: The Center for Health Policy, Research and Ethics, George Mason University, Health Resources and Services Administration, Milband Memorial Fund, Office of Rural Health, University of Arizona*. Mclean, VA: Health Tech Strategies.
- Rabinowitz, H., & Paynter, N. (2002). The rural vs urban practice decision. *Journal of the American Medical Association, Medical Students*, 287(1), 110.
- Ricketts, T., Johnson-Webb, K., & Taylor, P. (1998). *Definitions of rural: A handbook for health policy makers and researchers* (Technical issues paper). Federal Office of Rural Health Policy, Health Resources and Services Administration. U. S. Department of Health and Human Services. Retrieved November 20, 2007, at http://www.shepscenter.unc.edu/research_programs/rural_program/ruralit.pdf
- Rueter, M., Holm, K., Burzette, R., Jeong Kim, K., & Conger, R. (2007). Mental health of rural young adults: Prevalence of psychiatric disorders, comorbidity, and service utilization. *Community Mental Health Journal*, 43(3), 229-249.
- Smith, H., & Allison, R. (2001). *Telemental health: Delivering mental health care at a distance. A summary report*. Substance Abuse and Mental Health Services Administration, Center for Mental Health Services. Rockville, MD: U.S. Department of Health and Human Services.
- Stewart, W., Ricci, J., Chee, E., Hahn, S., & Morganstein, D. (2003). Cost of lost productive work time among US workers with depression. *Journal of the American Medical Association*, 289, 3135-3144.
- Stockdill, J., & Ciarlo, J. (2000). *Aging, mental illness, and the frontier. Letters to the field Number 21*. Frontier Mental Health Services Resource Network, Western Interstate Commission for Higher Education. Retrieved November 21, 2007, from <http://www.wiche.edu/mentalhealth/Frontier/letter21.asp>
- U.S. Department of Health and Human Services. (2000). *Health People 2010: Understanding and improving health* (2nd ed.). Washington DC: U.S. Government Printing Office.
- U.S. Department of Health and Human Services. (2001) *Health, United States, 2001 with urban and rural health chartbook, 25th report*. Washington, DC: U.S.

- Government Printing Office. Retrieved November 26, 2007, from <http://www.cdc.gov/nchs/hus.htm>
- Wang, J. (2004). Rural-urban differences in the prevalence of major depression and associated impairment. *Social Psychiatry and Psychiatric Epidemiology*, *39*, 19-25.
- Warner, T., Monaghan-Gernaert, P., Battaglia, J., Brems, C., Johnson, M., & Weiss Roberts, L. (2005). Ethics in community care. Ethical considerations in rural health care: A pilot study of clinicians in Alaska and New Mexico. *Community Mental Health Journal*, *41*(1), 21-33
- Weiss-Roberts, L., Battaglia, J., & Epstein, R. (1999). Frontier ethics: Mental health care needs and ethical dilemmas in rural communities. *Psychiatric Services*, *50*(4), 497-503.
- Whiting, M. (2006). Public policy update: Rural American in need. *Monitor on Psychology*, *37*(1). Retrieved November 21, 2007, from <http://www.apa.org/monitor/jan06/ppup.html>
- World Health Organization. (2007). *Mental health: A state of well-being*. WHO Department of Mental Health. Retrieved November 27, 2007, from http://www.who.int/features/factfiles/mental_health/en/index.html

8 Access to Health Care, Hepatitis C Virus, and Telehealth Technology: Assisting Rural Communities

Laura Marsh, RN, MSN, MBA

The growth and prosperity of technology, advances in medical science, demographic shifts, and the economic issues surrounding health care have all contributed to the changes in health care delivery, especially in rural, underserved communities. The use of distance communication to provide medical consultation has been around as long as the telephone. During the past 10 years, telehealth has become a major development in medicine by providing distance medical and nursing care to rural, underserved patients. This chapter will examine the issues with the economics of costs and access to medical care, provide an example using the hepatitis C virus (HCV), discuss changing practice models leveraged with the use of telehealth technology, and describe how these factors impact rural and underserved communities in New Mexico.

Background and Significance: The Problem of Health Care Access

It is difficult today not to encounter a story in the news about the high cost of health care, a seriously ill individual with no access to health care because he or she has no insurance, or government health insurance programs that threaten to decrease benefits due to the lack of state or federal dollars. We are faced with an increasing population of elderly, those who are uninsured and cannot afford the price of health care, individuals with chronic disease and disability, and issues with geographic location.

In another 15 years, 20% of Americans will be over the age of 65, and even more will be over 75 years of age. In 1900, only 4% of the elderly were 85 years or older. By the year 2050, that population will increase to 25% (Joel, 1990).

Despite relatively stable economic growth and low unemployment, the number of uninsured individuals has risen steadily since the 1990s. “The number of uninsured is expected to increase by about one million a year during the first five years of the new millennium” (Coddington, Fischer, & Moore, 2001, p. 67). Currently, approximately 43 million Americans have no insurance, limited insurance, or no access to health care. The rising costs of medical care compound the issue of the uninsured. The cost of medical care has increased rapidly in “response to higher prices and an increase in the quantity of

services provided. Spending on health care involves both prices and quantities and is often loosely referred to as ‘health care costs’” (McConnell & Brue, 2002, p. 710). Chronic illness affects over 100 million Americans. This is approximately one third of the population in the United States. Many of these individuals are afflicted with more than one chronic disease (Coddington et al., 2001). Unhealthy lifestyles, such as substance, alcohol, and tobacco use and abuse, drive health care costs up due to the damage to health and subsequent demand for health care services.

Geographic location, as in rural and remote areas, also limits health care access. These issues still exist, even though there have been attempts to improve access through outreach clinics, mobile services, and patient transportation. “When people are sick, they will come to the main clinic even if it means driving an hour or two. But, for everyday ailments that will afflict almost everyone, consumers want services to be convenient” (Coddington et al., 2001, p. 330).

In New Mexico, the barriers to health care include poverty, issues with access to health care, language, and a lack of knowledge with regard to services that are available. Poverty accounts for 17.7 % of the population compared with 11.7% nationally. Approximately 21.3 % of New Mexicans do not have health insurance compared with 15.2% nationally. Other issues include the lack of providers to deliver primary care in these rural communities (New Mexico Department of Health, 2000).

Risk Factors for the Problem of Health Care Access

Access to specialty care for chronic, complex diseases is almost nonexistent for patients who do not have health insurance. Although community health centers provide primary care to the poor and underserved, access to specialty services for complex disease management is limited and can result in higher morbidity and mortality. One such chronic, complex disease impacting New Mexicans is the HCV.

HCV is a significant public health burden, especially in rural communities, and the demand for treatment will only increase. There are approximately 200 million persons infected with the HCV virus worldwide, 3 million of whom are here in the United States (Arora, Geppert et al., 2007). It is estimated that there are approximately 30,000 individuals who are infected with HCV in New Mexico. This includes the New Mexico Corrections Department, which accounts for 2,400 inmates who are infected with the disease. The majority of cases, approximately 80%, will lead to chronic illness. Twenty-five percent of these cases will develop liver cirrhosis within 20 years, and 4% of cases will go on to develop hepatocellular cancer within 5 to 10 years (Ehsani, Trang, & Karvelas, 2006).

Healthy People 2010 identified elimination of health disparities as a national health goal in the United States. Rural and uninsured populations represent 3% of this inequality in the U.S. health care system (U.S. Department of Health and Human Services, 2006). Contributing to this disparity is the inequality of access to specialized treatment for chronic and complex diseases like HCV. This is not only because of the shortage of rural

providers and nurses but a shortage of providers with the expertise needed to manage these complex conditions (Arora, Geppert et al., 2007). HCV treatment requires complex management because of the potential for complications due to the side effects of the pharmaceutical treatment. Typically, this treatment has only been available in urban medical centers and substantially limits this provision of care to large rural populations (Arora, Geppert et al., 2007).

Telehealth Technology: What Is It and How Is It Being Used?

The advances in technology provide innovative ways to address the issues in health care related to cost, access, the aging, and the uninsured. A technological development that can ease the burden of these burgeoning issues is telehealth.

The term “telehealth” is not defined in either the *Oxford English Dictionary Online* or the *Oxford American College Dictionary*. The prefix *tel*, however, has origins in the Greek *telé*, meaning “afar; far off.” “The combination of this prefix with scientific or technical terms means connected with appliances or methods for operating over a long distance” (Oxford English Dictionary Online, 1989). Health was defined as “soundness of body; that condition in which its functions are duly and efficiently discharged” (Oxford English Dictionary Online, 1989). The *Oxford American College Dictionary* (2002) has the same definition for the prefix *tele*, and health is defined as “the state of being free from illness or injury” (p. 618).

The origins of telecommunication, as it is used in telehealth, started with the telephone. Nurses first used the telephone in the late 1800s and continue to use it today to deliver a variety of nursing services nationwide (Greenberg, 2000).

“Telehealth” is a new term for what was previously known as “telemedicine.” The ability to “telecommunicate” over long distances began in the late 1950s at the University of Nebraska, using this technology to provide primary and specialty care that slowly developed during the 1960s through the 1980s and rapidly progressed within the past decade. The National Aeronautics and Space Administration was first to develop the use of telemetry to monitor physiological signals and determine the state of health in astronauts in space. This specialized equipment monitored body temperature, heart rate, blood pressure, and other physiologic indicators using this wireless “telecommunication” system (Folen, James, Earles, & Andrasik, 2001).

According to Pincioli (2001), telehealth is a component of many “teleservices.” Health professionals want to deliver their services and provide care to their patients over great distances. When providers achieve this level of care, they provide teleservices, with the use of information and communication technology methods and devices.

Telehealth is an integrated system that provides health care activities over a distance. It is a technique of delivering health care, directly to the patient or in a consultation with the provider, at a distance rather than in person. Telehealth implies an ability to communicate health care delivery without the barriers of time and distance. The removal of these

barriers facilitates an increase in access to health care and an increase in capacity. This decreases costs while maintaining quality health care (Marineau, 2005). The use of telehealth in patients' homes is increasing in an attempt to provide cost-effective, quality care. Coleman (2002, as cited in Marineau, 2005) recognized over 200 telehealth programs in the United States in 1999. He expects telehealth programs to increase 40% annually over the next 10 years. He also predicts that telehealth programs will represent 15% of the health care expenditures by the year 2010.

Federal Communications Commission (n.d.) Chairman Kevin J. Martin announced on November 13, 2007, in a media release, a proposal that will fund \$400 million for creating and expanding rural telehealth networks. This pilot program, known as the Rural Health Care Pilot Program (RHCPP), will assist rural and underserved facilities in improving access to health care with the use of telemedicine networks that will create a national system of interoperable electronic health records. The applicants who are eligible to participate in the RHCPP program could receive funding for "up to 85 percent of the costs associated with the design, engineering and construction of innovative and highly efficient broadband systems" (p. 2). This funding will permit the expansion and development of these broadband health care networks and provide an option to connect to the Internet and to "one of the Nation's dedicated Internet backbones: Internet-2, National LambdaRail (NLR)" (p. 2).

The growth of telehealth parallels the demand for ambulatory and home-based health care services. The push for more efficient health care delivery within hospital systems has increased the number of home-health agencies and community-based programs. Telehealth is a strategy that can assist with these growing problems (Dansky, Ajello, & Duncan, 2005).

The technological component in Telehealth is the key factor that determines the success of this distance service. "Real-time" telehealth involves synchronous interaction between parties, whereas "store and forward" telehealth is asynchronous and allows the interaction to take place during a time of convenience for both parties. Telehealth requires appropriate equipment, technology, and committed, skilled personnel for the success of the clinical interaction (Harnett, 2006).

Robbins (1998) identified the following as some of the advantages of telehealth and its impact on the role of health care professionals:

- (a) contacting patients at home, work, or school
- (b) convening distributed health team conferences which includes patients
- (c) assessing and developing a plan of care for patients in remote areas
- (d) providing follow-up to previous plans of care and interventions
- (e) peer conferences
- (f) the opportunity to consult with other nurses, particularly nurses in remote areas who may be clinical experts or those needing to contact nurses who are experts
- (g) accessing expanded research populations
- (h) collecting data from remote sites (p.134).

Robbins (1998) also identified the following disadvantages of telehealth:

- (a) it does not replace direct person services
- (b) assessment may be limited without “hands on” access
- (c) what are the clinical guidelines to assure consistency of care
- (d) what is the legal liability, particularly when crossing state lines (p. 134).

There are many practicing providers who are using technology to provide expert health care across distances. Even more providers are using some form of computer technology in their daily practices (Lamb & Shea, 2006). The advances in technology will continue to move forward, and education will need to prepare health care professionals, at all levels, to utilize telehealth in practice, with its advantages and disadvantages, and develop new applications for improving patient care. Lamb and Shea (2006) stated, “Medical and nursing education in telehealth needs to reflect the roles, decision-making responsibilities, and capacity for knowledge building and innovation of the various constituencies within the profession” (p. 55).

Telehealth enables providers to interact with and monitor patients remotely. It also provides distance educational and consultative services, increasing specialty access to rural and underserved communities by expanding the roles of advanced practice nurses and general practitioners.

The strategies that must be adopted to ensure telehealth success are: (a) clinical excellence, (b) technological preeminence, and (c) cost containment (Dansky et al., 2005). These strategies must be in alignment with the goals of partnering health care services with technology, capitalizing on the advantages of telehealth, and produce a robust system that delivers quality service at an acceptable and appropriate cost. Telehealth may also be used as a potential intervention for decreasing the disparity in access to not only primary health care but specialty health care as well. The following examples illustrate how telehealth is currently being utilized.

Advanced Practice Nursing

Advanced practice nurses (APN) working in rural communities are challenged by geographic isolation, limited access to preventative services, and the lack of medical specialists. Telehealth technology has expanded the access to these services. It has also expanded the role of the APN by providing independence. An example of this is the APN performing a sigmoidoscopy while transmitting the real time images by video to the gastroenterologist. Another role complement is a nurse-run telehealth service providing care to the elderly in Scotland. The rural Scottish community combined a referral protocol with televideo consultation, and it benefited the nurses, patients and the physicians (Reed, 2005).

Efficacy in practice is another benefit provide by telehealth technology. A video link was provided to a minor treatment center in London and an emergency room in Belfast. A study was conducted to determine effectiveness and revealed that the link was

progressively utilized and was more cost effective than hiring another health care provider at the clinic (Reed, 2005).

Critical Care

The critical care model, also known as “e-ICU,” was developed to provide critical care expertise to remote locations impacted by a lack of resources. The e-ICU team, which includes an intensive care unit (ICU) intensivist (a physician who has received additional training and certification in critical care) and critical care nurses, is centrally located and interacts remotely with the bedside team of clinicians through the use of technology. This e-ICU model, unlike conventional ICU models, can support critical care services to approximately 100 patients in remote areas (Witzke, 2006).

Home Health Care for Diabetes Patients

In a randomized trial done in New York, each participant in a diabetes intervention group received a home telemedicine unit (HTU). This specially designed unit consisted of a Web-enabled computer that provided four functions: (a) videoconferencing via telephone connections to provide interaction with nurse case managers, (b) remote monitoring of glucose and blood pressure via specialized software, (c) access to the patient’s own clinical data via secure Web server and messaging to nurse case managers, and (d) access to an educational Web site supported by the American Diabetes Association. The results of the study were improved glycosylated hemoglobin, blood pressure, and low-density lipoprotein cholesterol levels (Shea et al., 2006).

Long Term Care for the Elderly

Telehealth services in long-term care settings provide access to nurse practitioners and physicians who are not available on site. Comprehensive assessment of a nursing home resident, with the use of telehealth technology, could reduce relocation stress, decrease the costs associated with inappropriate emergency room visits, and save staff and family time. This improves the quality of life for the nursing home residents (Daly, Jogerst, Park, Kang, & Bae, 2005).

School-Based Health Education

One school-based health education program addressed health education needs in rural Arkansas. The program provided information regarding health risks, disease prevention, health promotion, and health sciences for students in Arkansas junior and high school students. The overall goal of the program was to reduce the prevalence of smoking and decrease the risk of heart disease and infant mortality (Bynum, Cranford, Irwin, & Denny, 2002).

Bioterrorism and Disaster Preparedness

In the event of natural or man-made disasters, the ability to communicate among many organizations is critical. In 2002, an exercise took place at Camp Lejeune Marine Corps Base in Jacksonville, North Carolina. The exercise included hospitals and trauma centers within the affected area and tested: (a) in-place telehealth networks and (b) a variety of rapidly deployable technologies that included communication, networking, on-scene video, and clinical and environmental data acquisition. The extensive network for video conferencing already exists to support telehealth throughout the United States. This exercise demonstrated that the network can be activated to support a disaster situation in a timely manner (Simmons et al., 2003).

Psychophysiology and Biofeedback

Biofeedback continues to demonstrate effective treatment in a variety of physical conditions. Currently, there are approximately 1,500 certified psychologists and clinicians trained in biofeedback in the United States. The majority of these practitioners are located in urban areas, and the number of highly specialized biofeedback services is limited in rural and lower socioeconomic settings. By establishing biofeedback telehealth locations complete with equipment and technical support, patients can receive services at distances that previously would have prevented biofeedback treatment (Folen et al., 2001).

Genetic Medicine

Children who were diagnosed with genetic conditions were waiting months for follow-up evaluations in Florida. In addition to waiting for follow-up services, the children with inborn metabolism issues requiring nutritional services had to travel long distances to facilities that provided these services. The use of telehealth technology increased the access to genetic counseling and services for genetic conditions (Stalker et al., 2006).

Project ECHO: An Intervention Combining Telehealth Technology and HCV Treatment

Project ECHO (Extension for Community Health Care Outcomes) is a pilot telehealth program that is pioneering distance learning and technology based in the University of New Mexico Health Sciences Center. Using interactive video and audio connectivity, the ECHO model was established to improve access to safely and effectively treat patients with HCV in rural New Mexico by developing and supporting the competence of rural primary care providers (Arora, Thornton, Jenkusky, Parish, & Scaletti, 2007). The model focuses on the principles of case-based learning and disease management protocols to assist general practitioners to treat their own patients within their rural communities. Using the telehealth infrastructure and Internet technologies that include teleconferencing and video conferencing, these providers attend a weekly telehealth session where they interact with urban medical specialists to enhance their level of competence in the treatment of this complex disease. Arora, Thornton, et al. (2007) state:

Project ECHO uses patient case-based educational experiences to develop the skills of community providers through three main routes: 1) longitudinal co-management of patients with specialists, 2) shared case-management decision making with other primary care providers in the network, and 3) short didactic presentations on relevant topics, such as hepatitis A and B vaccination. Project ECHO calls these training approaches “learning loops,” which create in-depth understanding of hepatitis C care (deep domain knowledge) that allows the network clinicians to care for patients with hepatitis C (p. 76).

Currently, Project ECHO partners with the University of New Mexico Health Sciences Center Department of Internal Medicine; the New Mexico Department of Corrections, with eight actively participating correctional facilities; the Indian Health Services Hospitals in Santa Fe and Shiprock, New Mexico; the New Mexico Department of Health; and 14 Federally Qualified Health Centers throughout the state of New Mexico (Arora, Geppert et al., 2007).

To date, rural providers in New Mexico who participated in Project ECHO provided medical management for more than 2,000 HCV-infected patients throughout the state, including prisoners in state correctional facilities. More than 300 patients have undergone pharmaceutical treatment for HCV with the assistance of the Project ECHO network. In addition to expanding access to HCV treatment to rural patients, the providers who participate in Project ECHO receive continuing medical educational credit for their participation. Project ECHO has issued over 3,000 hours of continuing education credit to physicians, nurses, and ancillary staff (Arora, Thornton et al. 2007).

The ECHO model is being used for other disease management telehealth clinics that demonstrate six factors in which the “learning loops” will be the most beneficial. Arora, Geppert et al. (2007) describe the criteria as:

1. The disease is common.
2. The disease has complex management.
3. Treatment for the disease is evolving.
4. The disease has high societal impact.
5. There are serious outcomes of failing to treat the disease.
6. Improved outcomes can be obtained with disease management. (p. 155)

There are several common diseases, such as HCV, that contribute to high morbidity and mortality rates in our society. Many chronic conditions require intense pharmaceutical treatment and, in many situations, behavior and lifestyle changes to enhance the chances of therapeutic success. It is difficult for primary care providers to find the time to educate themselves with respect to the latest knowledge and changes in treatment regimens for the range of chronic illnesses. This prompted Project ECHO to expand and engage in providing other telehealth clinics with urban medical specialists to assist rural providers in treating rheumatologic conditions, gestational diabetes, high-risk pregnancy, HIV, behavioral health conditions, metabolic syndrome, and substance use disorders. These

clinics also utilize an interdisciplinary approach to chronic, complex disease management by providing education and training for nurses, social workers, and ancillary clinic staff. This program is currently funded with a federal grant from the Agency for Health, Research and Quality and the New Mexico State Legislature. The outcomes that will be measured for the grant are: (a) provider education and satisfaction, (b) the level of health care received by patients in rural communities is comparable to that of patients in the urban medical center, and (c) the use of the technological infrastructure.

Telehealth Technology, and the Role of Nursing

The use of telehealth technology for health care delivery has the ability to: (a) provide distance health care services, (b) provide distance health education, (c) expand access to health care services and/or specialty health care services to rural and underserved communities, and (d) contain costs. It also provides a new dynamic component for primary care providers and nurses with challenges in practice and knowledge development. State and federal entities recognize the desperate need to provide access to quality health care for patients in rural communities, and efforts to utilize technology as a method to facilitate this expansion is becoming a realistic, viable option. This option is on the verge of becoming a recognized, acceptable, and quality standard of health care delivery for rural and underserved communities.

Nursing research and telehealth technology are in the initial stages of investigating and developing nursing knowledge as it pertains to this new method of health care delivery. Now is the time to integrate the four fundamental patterns of knowing as (a) empirics, (b) esthetics, (c) personal knowledge, and (d) ethics (Carper, 1999) to assist with the development of nursing knowledge within this concept of telehealth. Nurse scientists will need to gain the insights to create and test new theories and models associated with nursing care delivery and telehealth and integrate them into nursing practice.

Conclusion

Telehealth is a valuable model for health care delivery, disease management, and disease prevention as long as the focus is on best practice standards and quality patient care. It is imperative that we understand the technology as we integrate it into practice and analyze outcomes.

References

- Arora, S., Geppert, C., Kalishman, S., Dion, D., Pullara, F., Bjeletich, B., et al. (2007). Academic health center management of chronic diseases through knowledge networks: project ECHO. *Academic Medicine*, 82(2), 154-160.
- Arora, S., Thornton, K., Jenkusky, S., Parish, B., & Scaletti, J. (2007). Project ECHO: linking university specialists with rural and prison-based clinicians to improve care for people with chronic hepatitis C in New Mexico. *Public Health Reports*, 122(2), 74-77.

- Bynum, A., Cranford, C., Irwin, C., & Denny, G. (2002). Participant satisfaction with a school telehealth education program using interactive compressed video delivery methods in rural Arkansas. *Journal of School Health, 72*(6), 235-246.
- Carper, B. (1999). Fundamental patterns of knowing. In E. Polifroni & M. Welch (Eds.), *Perspectives on philosophy of science in nursing*. Philadelphia: Lippincott.
- Coddington, D., Fischer, E., & Moore, K. (2001). *Strategies for the new health care market place*. San Francisco: Jossey-Bass.
- Daly, J., Jogerst, G., Park, J., Kang, Y., & Bae, T. (2005). A nursing home telehealth system: Keeping residents connected. *Journal of Gerontological Nursing, 31*(8), 46-51.
- Dansky, K., Ajello, J., & Duncan, D. (2005) Marketing telehealth to align with strategy. *Journal of Healthcare Management, 50*(1), 19-30.
- Ehsani, J., Trang, V., & Karvelas, M. (2006). Exploring the need for hepatology nurses and allied health professionals in Victorian liver clinics. *Australian Health Review, 30*(2), 211-217.
- Federal Communications Commission. (n.d.). *FCC Chairman Martin discusses benefits of deploying broadband telehealth networks in rural and underserved communities*. Retrieved November 16, 2007, from <http://www.fcc.gov>
- Folen, R., James, L., Earles, J., & Andrasik, F. (2001). Biofeedback via telehealth: A new frontier for applied psychophysiology. *Applied Psychophysiology and Biofeedback, 26*(1), 195-204.
- Joel, L. (1990) Changes in the hospital as a place of practice. In J. McCloskey & H. Grace (Eds.), *Current issues in nursing*. St. Louis, MO: Mosby.
- Harnett, B. (2006). *Telemedicine and Telecare, 12*(1), 4-15.
- Marineau, M. (2005). Health/illness transition and telehealth: A concept analysis using the evolutionary method. *Nursing Forum, 40*(3), 96.
- McConnell, C. & Brue, S. (2002). *Economics: Principles, problems, and policies* (15th ed.). Boston: McGraw-Hill.
- New Mexico Department of Health. (2000). *Access to New Mexico's health system: The State of Health in New Mexico 2000 Report*. Retrieved February 8, 2008, from <http://www.health.state.nm.us/StateofNM2000/access.htm>
- Pinciroli, F. (2001). A manifesto on telehealth and telemedicine. *Journal of the American Medical Informatics Association, 8*(4). 349-350.
- Reed, K. (2005). Telemedicine: Benefits to advanced practice nursing and the communities they serve. *Journal of the American Academy of Nurse Practitioners, 17*(5), 176-180.
- Robbins, K. (1998). Telenursing: Using technology to deliver health care. *ANNA Journal, 25*(2), 134.
- Shea, S., Weinstock, R., Starren, J., Teresi, J., Palms, W., Field, L., et al. (2006) A randomized trial comparing telemedicine case management with usual care in older, ethnically diverse, medically underserved patients with diabetes mellitus. *Journal of the American Medical Informatics Association, 13*(1), 40-51.
- Simmons, S., Murphy, T., Blarovich, A., Workman, F., Rosenthal, D., & Carbone, M. (2003). Telehealth technologies and applications for terrorism response: A report of the 2002 coastal North Carolina domestic preparedness training exercise. *Journal of America Medical Informatics Association, 10*(2), 166-176.

- Stalker, H., Wilson, R., McCune, H., Gonzalez, J., Moffett, M., & Zori, R. (2006). Telegenetic medicine: Improved access to services in an underserved area. *Journal of Telemedicine and Telecare*, 12(4), 182-185.
- U.S. Department of Health and Human Services. (2006). *Healthy People 2010*. Retrieved February 8, 2008, from <http://www.healthypeople.gov/default.htm>
- Witzke, A. (2004). Trends in telemedicine: The e-ICU program transforms the ICU by enabling an intensivist-directed model of care. *Nursing 2006: Critical Care*, 1(6), 51-60.

9 End-Stage Renal Disease in Rural New Mexico

Sandra L. McClelland, RN-BC, FNP, GNP, MSN

The increased incidence of end-stage renal disease (ESRD) and its associated morbidity and mortality is a worldwide public health problem. The number of new cases of ESRD in the United States is projected to be 650,000 by 2010, with Medicare expenditures of \$28 billion (Xue, Ma, Louis, & Collins, 2001). Providing quality care to dialysis patients is challenging in the urban setting, but it is even more difficult within a rural community. Compared with non-rural residents, rural residents have higher rates of chronic illnesses and life-threatening conditions, such as cancer, heart disease, diabetes, arthritis and ESRD, which is defined as kidney failure requiring dialysis or transplantation (Warner et al., 2005). The two main goals of Healthy People 2010 are to increase quality and years of healthy life and to eliminate health disparities. Its major goal for chronic kidney disease (CKD) is to reduce new cases and its complications, disability, death, and economic costs (Gamm, Hutchinson, Dabney, & Dorsey, 2003).

ESRD rates have a disproportionate impact on certain racial and ethnic groups. In rural New Mexico, specific rural populations, such as the American Indians of the Zuni Pueblo and those of Latino ancestry, are at high risk for kidney failure. Although these two ethnic groups have a higher incidence, CKD affects all ethnicities. Rural communities in New Mexico face unique challenges in accessing dialysis services for the treatment of kidney failure. These challenges also have specific implications for nursing.

Background and Significance

Defining Rurality

Deciding on one definition for rurality and culture is very difficult. One operational definition for rurality that can be generalized does not exist (Bushy, 2000; Weinert & Burnam, 1999). In an effort to describe and define rurality, Weinert & Burnam (1999) liken the rural community to a sampler quilt, stressing that the unique characteristics for each locale and subgroup cannot be generalized, and health care needs must be individualized to income, education, race, age, and marital status.

There is a lack of agreement on the definition of what rurality entails, how it is measured, and how it is used in health care policy and planning (Rygh & Hjortdahl, 2007). The definition of rurality becomes an issue of access and health status when policy makers have to define rural. The U.S. Census Bureau (2005) defines urban as comprising all territory, population, and housing units located in urbanized areas and in places of 2,500 or more inhabitants outside of rural areas (Ricketts, Johnson-Webb, & Taylor,

1998). Urban areas have a population of 50,000 or more, and metro areas have 1,000,000 or more (Bushy, 2000). Rural and urban areas and populations identified by census systems have substantial disparities. Rurality can also be defined by what services are available.

Rurality to the dialysis patient means having to drive a long distance to get to a dialysis machine. Bushy (2000) writes of perceived control of the environment, where a group believes they have little control over what happens to them. A dialysis patient is labelled as nonadherent because of missing dialysis treatments. A lack of control by the dialysis patient is shared by all of them. Dialysis patients frequently encounter having to adhere to the customs and rules of the unit, including scheduling, transportation issues, and hours on dialysis. Although the staff tries to give patients autonomy, it is not without difficulty. The shortage of dialysis machines, especially in the remote areas of New Mexico, will often be the cause for patient schedules not fitting a patient's lifestyle.

For the purpose of this chapter, rurality is defined as an area with a variety of ethnic/racial groups, socioeconomic classes, ages, and languages. Some of the characteristics that New Mexico rural areas include are isolated and dispersed communities, low-density population, limited public transportation and road infrastructure, long distances to hospitals and health care services, and difficulties attracting and recruiting qualified personnel.

Defining Culture

A definition that can be found when you Google the definition of culture (www2.eou.edu/~kdahl/cultdef.html, 2007) is "a shared, learned, symbolic system of values, beliefs and attitudes that shapes and influences perception and behavior -- an abstract "mental blueprint" or "mental code." My definition is "the system of shared beliefs, values, customs, behaviours, and artifacts that the members of society use to cope with their world and with one another, and that are transmitted from generation to generation through learning." This definition reflects the meaning of culture for a dialysis population. It is fairly standard for all patients in the unit to be given information about their renal failure, dietary changes, number of hours they must spend on the machine, and a certain schedule they must adhere to. These are included in their shared beliefs and values, and one might call them "their customs." A type of artifact that they share is their access, otherwise called their arteriovenous shunt or graft, which is common to all in this group or culture. They all share a common language of the dialysis patient, which includes terms or words such as *estimated dry weight* and *interdialytic weight gain*. Most patients know these terms or the equivalent in their language (Zuni, Navajo, Spanish).

ESRD in the United States

The Social Security Amendments of 1972 established the entitlement to Medicare benefits for people with a diagnosis of permanent kidney failure who were eligible for Social Security benefits (Rettig & Levinsky, 1991). This entitlement is the End-Stage Renal Disease Program of Medicare. Prior to this, ESRD patients faced certain death.

Dialysis and kidney transplantation were experimental and not available in all medical centers, and the cost of treatments were not affordable to the average American. The Medicare ESRD program provided a life-saving treatment that has grown from 10,000 to over 150,000 persons since its inception in 1973.

Kidney disease is the ninth leading cause of death in the United States (National Vital Statistics System [NVSS], 2007). Approximately 19 million adults have chronic kidney disease, and 80,000 are diagnosed with chronic kidney failure annually. Risk factors for CKD include cardiovascular disease, diabetes, hypertension, and obesity (Centers for Disease Control and Prevention [CDC], 2007). Diabetes is the major cause of chronic kidney failure and the sixth leading cause of death in the United States (NVSS, 2007), followed by hypertension. Both hypertension and diabetes account for 60% of new ESRD cases (U.S. Renal Data System, 2003). From 1990 to 2001, the national prevalence of chronic kidney failure (from all causes) increased 104%, from 697 to 1,424 cases per million population. The largest increase was in the prevalence of diabetes-related CKF, which increased 194%, from 171 to 503 cases per million populations (CDC, 2004). The prevalence of hypertension-related chronic kidney failure increased 99% (from 166 to 331 cases per million population), and the prevalence of chronic kidney failure related to other causes increased 64% (from 360 to 590 cases per million population; CDC, 2004). Recent data from the National Health and Nutrition Examination Survey (NHANES) reported that 16.8% of the U.S. population over the age of 20 had CKD from 1999 to 2004, compared with 14.5% from 1988 to 1994, which is about a 16% increase. Diabetes caused 44% of new cases of treated ESRD and 72% of new cases in American Indian and Alaska-Native populations (Burrows, Narva, Geiss, Engelgau, & Acton, 2005);

ESRD in New Mexico

New Mexico is a member of the ESRD Network. The southwest area is Network #15, which comprises the states of Arizona, Colorado, Nevada, Utah, and Wyoming (Figure 1). These states encompass 21% of the land mass of the continental United States. The urban centers contain the majority of the population, with vast rural and wilderness areas in each state including New Mexico. New Mexico has 33 Medicare certified dialysis units and two transplant centers, which are located in Albuquerque (I-ESRD Network, 2006).

New Mexico is the fifth largest state in the nation, with 12,356 square miles. It ranks 36th in population, with fewer than 2 million people. Approximately 1 million people reside in the Albuquerque area, and the rest are located throughout the state. The population density for New Mexico is 16.1 persons per square mile of land (Figure 2; I-ESRD Network, 2006).

Major components of the New Mexico economy are ranching, nuclear energy research, and mining. One in four workers is employed by the federal government. The topography of New Mexico includes plains in the east and mountains and high desert in the west, with elevations of from 2,842 to 13,161 feet above sea level. New Mexico was the 16th fastest growing state in the nation from 2000 to 2006, and 35% of the population is rural.

The distance between population areas varies from 50 to 300 miles. New Mexico has one of the highest rates of poverty among the 50 states

ESRD Network #15

Population -- Ranks

Population (In 1,000s)	1990 Population/ Rank	2000 Population/ Rank	2006 Population**/ Rank	% Change 2000 to 2006**
United States	248,700/NA	281,422/NA	299,399/NA	6.4%+
Arizona	3,665/24	5,131/20	6,166/16	20.2%+
Colorado	3,294/26	4,301/24	4,753/22	10.5%+
Nevada	1,202/39	1,998/35	2,496/35	24.9%+
New Mexico	1,515/37	1,819/36	1,956/36	7.5%+
Utah	1,723/35	2,233/34	2,550/34	14.2%+
Wyoming	454/50	494/50	515/51	4.3%+

Sources: U.S. Census Bureau, Statistical Abstract of the United States, 2001 **Annual Estimates of the Population: April 1, 2000 to July 1, 2006 (CO-EST2006-01-04 and NST-EST2006-05) Source: Population Division, U.S. Census Bureau.

The two fastest growing states in the nation from 2000 to 2006 are in Network #15: Nevada (1) and Arizona (2). Utah ranks as the fourth fastest growing state, Colorado is 8th, New Mexico is 16th, and Wyoming is 26th. An increase in the number of dialysis patients and providers in the region have accompanied this population growth. Additionally, this region has a high percentage of Native Americans whose population growth rate is higher and whose incidence of ESRD is above that of the Anglo population.

Figure 1. The population of the states in ESRD Network #15

ESRD Network #15

Land Mass

	Total Land (Sq. Miles) ¹	Pop/Sq. Mile (1996) ²	Pop/Sq. Mile (2000) ¹	Pop/Sq. Mile (2006) ³
Arizona	113,635	39.0	45.2	54.3
Colorado	103,718	36.9	41.5	45.8
Nevada	109,826	14.6	18.2	22.7
New Mexico	121,356	14.1	15.0	16.1
Utah	82,144	24.3	27.2	31.0
Wyoming	97,100	5.0	5.1	5.3

Sources: U.S. Census Bureau: State and County Quick Facts, 2000, ¹Statistical Abstract of the United States, 1997, US Gov. Printing Office, ²Annual Estimates of the Population: April 1, 2000 to July 1, 2006 (CO-EST2006-01-04 and NST-EST2006-05) Source: Population Division, U.S. Census Bureau

Nationally, 28.8% of all land is federally owned (2004). In Network #15, that percent ranges from 84.5% in Nevada to 36.6% in Colorado. The average national population density is 84.7 persons per square mile of land, including Alaska and Hawaii (2006). In the Network #15 area, the population density ranges from five persons per square mile in Wyoming to 54 persons per square mile in Arizona.

Figure 2. The land mass of ESRD Network #15.

ESRD Network #15

ESRD Network #15 2006 Demographics							
	Network #15	AZ	CO	NV	NM	UT	WY
Total Population*	18,434,890	6,166,318	4,753,377	2,495,529	1,954,599	2,550,063	515,004
Prevalent Dialysis Patients**							
Number of Patients	# 15,802	6,479	3,194	2,167	2,389	1,240	246
% of Total Population	% 0.09%	0.11%	0.07%	0.09%	0.12%	0.05%	0.05%
Male	# 8,787	3,541	1,785	1,298	1,275	701	144
% of patients	% 55.6%	54.7%	55.9%	59.9%	53.4%	56.5%	58.5%
Primary dx Diabetes	# 8,205	3,508	1,493	981	1,460	620	104
% of patients	% 51.9%	54.1%	46.7%	45.3%	61.1%	50.0%	42.3%
Hispanic Patients	# 4,504	1,994	921	381	1,012	156	29
% of patients	% 28.5%	30.6%	28.8%	17.6%	42.4%	12.6%	11.8%
American Indian Pts	# 2,160	1,160	68	73	732	80	24
% of patients	% 13.7%	17.9%	2.1%	3.4%	30.6%	6.5%	8.8%
InCenter Hemodialysis Pts	# 14,183	5,891	2,858	1,940	2,126	1,077	224
% of patients	% 89.8%	90.9%	89.5%	89.5%	88.9%	88.9%	91.1%
Mean age of Prevalent Pts	60.6	61.4	60.8	59.7	60.4	58.9	60.5
Incident Patients**							
Number of Patients	# 4,984	2,071	918	819	623	431	62
Male	# 2,855	1,158	502	508	374	234	42
% of Incident patients	% 57.3%	55.9%	54.7%	61.8%	60.0%	54.3%	67.7%
Primary dx diabetes	# 2,515	1,054	440	390	361	220	28
% of Incident patients	% 50.5%	50.9%	47.9%	47.8%	57.9%	51.0%	45.2%
Hispanic Patients	# 1,209	574	208	106	274	37	6
% of Incident patients	% 24.3%	27.7%	22.7%	12.9%	44.0%	8.6%	8.1%
American Indian Pts	# 370	190	10	15	126	17	10
% of Incident patients	% 7.4%	9.2%	1.1%	1.8%	20.2%	3.9%	16.1%
Mean age of Incident Pts	62.0	63.3	61.8	62.6	60.8	58.5	59.6
Facilities							
# of Dialysis Facilities	237	97	50	24	33	24	8
# of Transplant Units	14	4	4	2	2	2	0
# New dx units in 2006	9	3	3	1	2	0	0
# Units closed in 2006	3	2	1	0	0	0	0
Veterans Health Administration Units	5	2	1	0	1	1	0

* Annual Estimates of the Population: April 1, 2000 to July 1, 2006 (CO-EST2006-01-04) Source: Population Division, U.S. Census Bureau
 ** Network #15 SINES Data

Note: States do not add up to Network Total because some patients reside in states outside of Network #15 but dialyze in Network #15.

Figure 3. The demographic characteristics of patients in ESRD Network #15.

Kidney disease has a disproportionate impact on certain racial and ethnic groups (Figures 3 and 4). American Indians have a much higher risk of CKD than Whites because of a higher incidence of diabetes (Frankenfield, et al., 2004). The rate of new cases is 4 times higher in American Indians. ESRD incidence has increased among American Indians and Alaska Natives. An example is the approximately 80% of the Zuni Indians that live in Zuni Pueblo in rural New Mexico. The Zuni Pueblo is experiencing an epidemic of renal disease. Almost all Zuni tribal members have a relative with ESRD (Stidley et al., 2002). The Zuni Pueblo in New Mexico may have the highest rates of kidney failure in the world, at 12.6 times the overall average U.S. rate (Gamm et al., 2003). Persons of Mexican ancestry may also have a higher risk of developing chronic kidney failure, especially due to diabetes (Gamm et al., 2003)

Network #15 Demographics at a Glance

	US	AZ	CO	NV	NM	UT	WY
POPULATION in Thousands (2005 Estimates)¹							
Total	268,378	5,830	4,562	2,381	1,887	2,427	495
Percentages by age group							
0 to <5	7.0%	7.9%	7.4%	7.3%	7.0%	9.7%	6.3%
5 to <18	18.3%	19.1%	18.4%	18.7%	18.8%	20.7%	16.5%
18 to <45	37.5%	37.6%	40.1%	38.9%	36.3%	42.0%	35.8%
45 to <65	25.0%	22.7%	24.4%	23.8%	25.8%	19.1%	29.4%
65 to <75	6.4%	7.0%	5.4%	6.7%	6.9%	4.7%	6.5%
75 +	5.7%	5.6%	4.3%	4.5%	5.2%	3.8%	5.5%
Percent Urban²							
1990	78.0%	86.5%	83.8%	87.4%	75.0%	86.8%	67.1%
2000	79.0%	88.2%	84.5%	91.5%	75.0%	88.2%	65.1%
Race (2005 Estimates)¹							
White	74.7%	76.2%	83.5%	76.1%	69.5%	89.8%	92.4%
Black	12.1%	3.1%	3.6%	7.2%	1.9%	0.7%	0.7%
Am Indian/AK Nat.	0.8%	4.7%	0.9%	1.2%	9.6%	1.2%	1.9%
Asian	4.3%	2.2%	2.6%	5.8%	1.2%	1.9%	0.6%
Pacific Islander	0.1%	0.1%	0.1%	0.5%	0.1%	0.6%	0.0%
Some other race	6.0%	11.3%	6.7%	6.1%	14.5%	4.2%	2.4%
Two or more races	1.9%	2.4%	2.6%	3.1%	3.2%	1.5%	1.9%
Ethnicity (2005 Estimates)¹							
Not Hispanic or Latino	85.5%	71.4%	80.5%	76.3%	56.4%	89.1%	93.3%
Hispanic or Latino	14.5%	28.6%	19.5%	23.7%	43.6%	10.9%	6.7%
Physicians per 10,000 Population							
1995 ³	24.2	21.4	23.7	16.7	20.2	19.2	15.3
1999 ³	25.2	21.5	24.8	18.3	21.1	19.7	17.2
2004 ⁴	28.1	22.5	26.8	19.6	23.8	21.5	19.1

Sources: ¹U.S. Census Bureau, 2005 American Community Survey, (Margin of error +/-0.1) ²Statistical Abstract of the United States, 2006 Edition, ³National Center for Health Statistics FastStats, 2000, ⁴The Kaiser Family Foundation, statehealthfacts.org, 2004.

Figure 4. Demographics at a glance.

Because the burden of ESRD has become a community-wide problem in the American Indian tribes, significant efforts to provide dialysis services on the reservations have improved the access to dialysis in rural areas. Prior to the availability of dialysis units on the reservation, patients were flown to Albuquerque three times a week for dialysis treatment. According to Narva (2002), barriers continue, including: high rates of poverty; traveling distances and poor road conditions in the rural areas; recruitment and retention of staff; language and cultural barriers; and the high numbers of patients with diabetes and co-morbid conditions. Studies have shown that American Indian patients also have decreased access to kidney transplantation, waiting longer than White Americans (Narva, 2002; O'Hare, Johansen, & Rodriguez, 2006).

Hemodialysis has transformed the prognosis of patients with ESRD; however, these patients face numerous challenges, such as necessary dietary restrictions in protein, potassium, and fluid intake, and taking their medication, including phosphate-binders, diuretics, and antihypertensives. They also face the challenges of impaired quality of life because of their disease and the demanding treatment regimen that requires dialysis three

times per week for 4 to 6 hours. Twelve percent to 45% of dialysis patients are severely depressed (Krespi, Bone, Ahmad, Worthington, & Salmon, 2004). The majority of these patients also face challenges with financial insecurity because unemployment is almost inevitable.

ESRD patients have all the same disparities that are attributed to rural populations. According to the National Healthcare Disparities Report (NHDR; n.d.), racial and ethnic groups, the poor and less educated, are more likely to have poor communication with their physicians. NHDR also reports that populations in remote rural areas are at risk for having worse access and receiving poorer quality care. Those of lower socioeconomic status have more difficulty accessing health care information, are less likely to receive recommended diabetic services, and are more likely to be hospitalized for diabetes and its complications.

Challenges in Providing ESRD Treatment in Rural New Mexico

ESRD therapy is unique in its intensity, longevity, and depth of care. Dialysis patients must meet many challenges. Hemodialysis is a complex and demanding regimen. The key components involved in the treatment are dialysis three times per week for an average of 4 to 6 hours, nutritional management, medication, and exercise. A nonadherence rate of from 2% to 100% has been reported in dialysis patients, depending on the measurements used (Leggat, 2005). Strong evidence suggests that poor adherence is the primary reason for suboptimal clinical benefit of any given treatment, causing medical and psychosocial complications of disease, reducing quality of life, and wasting health care resources (World Health Organization, 2004). The costs of poor adherence to medication have been estimated to be greater than \$100 billion yearly, and hospital readmissions from nonadherence occur 5% to 40% of the time (Cvengros, Cristensen, & Lawton, 2004; Dunbar-Jacob & Mortimer-Stephens, 2001). It has been estimated that more than 50% of hemodialysis patients do not follow the fluid restriction regimen that is prescribed (Leggat, 2005; Sharp, Wild, Gumley, & Deighan, 2005).

Because ESRD therapy requires a multidisciplinary approach, there are numerous ways that nonadherence can occur. Studies that examined the rates of nonadherence among the various components of therapy (diet, restriction of fluids, and medication) have shown that fluid restriction has the highest rate of nonadherence (Sharp et al., 2005). This is one of the most frustrating aspects of dialysis care, not only for the patient but also for staff. Nonadherence in hemodialysis is associated with increased mortality and morbidity. The consequences of nonadherence can be serious and range from reduced effectiveness of hemodialysis to excessive interdialytic weight gain, necessitating a longer dialysis treatment. Other medical complications can include acute pulmonary edema; hypertension; hypotensive symptoms, such as muscle cramps, nausea, and headaches; and even death (Sharp et al., 2005).

Nursing Implications

Nursing shortages are a problem in the urban areas and are exacerbated in rural areas. In rural settings, nurses are expected to be experts in the generalist role, but they may still need to bridge services by acting as activists, advocates, expert clinicians, and educators. Recruitment and retention of specialist dialysis nurses are even more problematic. The trend in dialysis care is training of dialysis technicians so that fewer nurses are used. Rural areas are more challenged in finding qualified personnel to take care of dialysis patients.

In remote areas, there is limited access to professional education. With shortages in staffing, the ability to attend professional education programs becomes difficult. Professional staff that is fluent in the languages of rural patients is another barrier to patient care, especially with the American Indian population. Educational programs for American Indians in the medical field need to be encouraged.

Summary

The number of ESRD patients continues to increase. Unless changes that impact patient behavior are made, such as improving dietary habits and increasing physical exercise, the 60% prevalence rate for diabetes and hypertension will not decrease and CKD will continue to increase. Health care providers need to intervene and address the issues with their patients. Nurses, in particular, need to develop behavioral interventions that can encourage patients to make lifestyle changes. Understanding cultural beliefs and values in the diverse population of the ESRD patients is important in providing culturally sensitive health care.

References

- Burrows, N. R., Narva, A. S., Geiss, L. S., Engelgau, M. M., & Acton, K. J. (2005). End-stage renal disease due to diabetes among Southwestern American Indians, 1990-2001. *Diabetes Care*, 28(5), 1041-1045.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage.
- Centers for Disease Control and Prevention. (2004). State specific trends in chronic kidney failure---United States 1990-2001. *MMWR*, 53(39); 918-920.
- Centers for Disease Control and Prevention. (2007). Prevalence of chronic kidney disease and associated risk factors-United States, 1999-2004. *MMWR*, 56, 161-165.
- Cvengros, J. A., Cristensen, A. J., & Lawton, W. J. (2004). The role of perceived control and preference for control in adherence to a chronic medical regimen. *Annals of Behavioral Medicine*, 27(3), 155-161.
- Dunbar-Jacob, J., & Mortimer-Stephens, M. K. (2001). Treatment adherence in chronic disease. *Journal of Clinical Epidemiology*, 54, S57-S60.

- Frankenfield, D. L., Roman, S. H., Rocco, M. V., Bedinger, M. R., & McClellan, W. M., (2004). Disparity in outcomes for adult Native American hemodialysis patients? Findings from the ESRD clinical performance measures project, 1996 to 1999. *Kidney International*, 25, 1426-1434.
- Gamm, L., Hutchinson, L., Dabney, B., & Dorsey, A. (Eds.). (2003). *Rural healthy People 2010: A companion document to Healthy People 2010, Volumes 1-3*. College Station: Texas A&M University System Health Science Center.
- Intermountain End-Stage Renal Disease Network. (2006). *2006 Annual Report. Intermountain End-Stage Renal Disease Network, Inc. Contract Numbers 500-03-NW15 and JJSM-500-2006-015C*, 1-82. Retrieved November 30, 2007, from <http://www.esrdnetworks.org/networks/net15/aboutus.htmXX>
- Krespi, R., Bone, M., Ahmad, R., Worthington, B., & Salmon, P. (2004). Hemodialysis patients' beliefs about renal failure and its treatment. *Patient Education and Counseling*, 53, 189-196.
- Leggat, J. E. (2005, March-April). Adherence with dialysis: A focus on mortality risk. *Seminars in Dialysis*, 18(2), 137-141.
- Narva, A. S. (2002). Kidney disease in Native Americans. *National Medical Association*, 94(8), 735-742.
- Narva, A. S. (2003). The spectrum of kidney disease in American Indians. *Kidney International*, 63(Suppl.), S3- S7.
- National Healthcare Disparities Report, 2003. (n.d.). *Executive summary*. Retrieved November 19, 2007, from <http://www.ahrq.gov/qual/nhdr03/fullreport/Exec.htm>
- National Vital Statistics System. (2007). *Mortality data from the National Vital Statistics System*. Retrieved November 1, 2007, from <http://www.cdc.gov/nchs/data/nvsr/nvsr55>
- O'Hare, A. M., Johansen, K. L., & Rodriguez, R.A. (2006). Dialysis and kidney transplantation among patients living in rural areas of the United States. *Kidney International*, 69, 343-349.
- Rettig, R. A., & Levinsky, N. G., (Eds.). (1991). Committee for the Study of the Medicare End-Stage Renal Disease Program, Division of Health Care Services. *Kidney Failure and the Federal Government*. Washington, DC: The National Academies Press.
- Ricketts, C., Johnson -Webb, K. D., & Taylor, P. (1998). *Definitions of rural: A handbook for health policy makers and researchers*. Washington, DC: U.S. Department of Health and Human Services.
- Rygh, E. M., & Hjortdahl, P. (2007, July). Continuous and integrated health care services in rural areas. A literature study. *Rural and Remote Health* 7:766. Retrieved November 30, 2007, from <http://www.rrh.org.au>
- Rygh EM, Hjortdahl P. Continuous and integrated health care services in rural areas. A literature study. *Rural and Remote Health* 7 (online), 2007: 766. Available from: <http://www.rrh.org.au>
- Sharp, J., Wild, M. R., Gumley, A. I., & Deighan, C. J. (2005, June). A cognitive behavioral group approach to enhance adherence to hemodialysis fluid restrictions: A randomized controlled trial. *American Journal of Kidney Diseases*, 45(6), 1046-1057.

- Stidley, C. A., Shah, V. O., Narva, A. S., Dalton, D., MacCluer, J. W., Bobelu, A., et al. (2002, February). A population-based, cross-sectional survey of the Zuni pueblo: A collaborative approach to an epidemic of kidney disease. *American Journal of Kidney Diseases*, 39(2), 1-16.
- U.S. Renal Data System. (2003). *Researcher's guide to the USRDS database*. Bethesda, MD: National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases.
- U.S. Census Bureau. (2005). *State and county quick facts*. Retrieved November 20, 2007, from <http://quickfacts.census.gov/qfd/states/35000.html>
- Warner, T.D., Monaghan-Geernaert, P., Battaglia, J., Brems, C., Johnson, M.E., Roberts, L.W. (2005, February). Ethical considerations in rural health care: A pilot study of clinicians in Alaska and New Mexico. *Community Mental Health Journal*, 41(1), 21-33.
- Weinert, C., & Burnam, M. E. (1999). The sampler quilt. A metaphor of rural communities. In A. S. Hinshaw, S. L. Feetham, & J. L. Shaver (Eds.), *Handbook of clinical nursing research* (pp. 75-86). Thousand Oaks, CA: Sage.
- World Health Organization. (2004). *Adherence to long-term therapies: Evidence for action*. Retrieved July 27, 2004, from http://www.who.int/chronic_conditions/adherencereport/en/print.html
- Xue, J. L., Ma, J. Z., Louis, T. Z., & Collins, A. J. (2001). Forecast of the number of patients with end-stage renal disease in the United States to the year 2010. *Journal of American Society of Nephrology*, 12, 2753-2758.

10 Women Veterans

Susan Steel, RN, MSN

What could I do but go with them [Civil War soldiers], or work for them and my country? The patriot blood of my father was warm in my veins.

Clara Barton, 1821-1912

The purpose of this chapter is to discuss the health care issues surrounding the women veterans of the military armed forces. Women have contributed in a meaningful, proactive, and insightful fashion in times of conflict since the Civil War. Their contributions have been numerous, from the founding of the Red Cross by Clara Barton continuing through both World Wars where women functioned as pilots, drivers, and nurses. Today, they continue their patriotic duties in the most recent conflicts in the Persian Gulf and Iraq. Their roles have expanded, and they now provide support in nontraditional occupations, in addition to the traditionally female roles, such as nursing.

Background

The armed services of the United States are increasingly composed of women. Deployed women are most often in the Army, single, and college educated (Carney, 2003). More women served in the U.S. military during the Persian Gulf War than in any other time in the history of the country (Carney et al., 2003). The unprecedented numbers in this conflict came from the active duty component (7%) as well as the Reserve and National Guard (17%) constituents. More than 33,000 military women served in key combat support positions (Pierce, 2005).

Although women veterans account for only a small number of the total veteran population, they are a rapidly growing component, with special needs particular to women's health (Washington, 2004). According to the U.S. Government Accountability Office (U.S. GAO), there were approximately 740,000 women veterans, representing 2.5% of all veterans, in 1982. In 1997, this number increased by 66%, to over 1.2 million, or 4.8% of the veteran population (U.S. GAO, 1999). Currently, one in seven VA outpatients under the age of 50 is female (Washington, 2004). It is estimated that women will comprise 10% of the veteran population by 2010 (U. S. GAO, 1999).

Though the primary mission of the Veteran's Administration (VA) medical care system is the provision of care to veterans with service-connected disabilities, the facilities may provide care for nonservice-connected conditions to those veterans who are unable to

afford such care. Historically, the VA has assumed that role for all veterans and has staffed its facilities accordingly. The Department of Veterans Affairs addressed the impact of women veterans on their health care facilities as far back as 1982 (U.S. GAO, 1982).

Women have served in the U.S. military as far back as World War I, but they have not been afforded health care through the VA, as their male counterparts have. In fact, women who served in the Women's Air Force Service Pilots (WASP) during World War II were not eligible for VA benefits until 1979 (U.S. GAO, 1999).

In a response to an inquiry by Senator Daniel Inouye, the GAO addressed the current and anticipated needs of the female veterans. The response indicated that although the unique, gender-specific needs of the women veterans were acknowledged, the VA had not adequately focused on their needs.

Although these inequities were legally eliminated, the 1982 GAO report further stressed that men and women veterans must have equal access to treatment programs and medical facilities, and that women veterans should be adequately informed of their benefits. They opined that action was needed to assure this access. Furthermore, the report addressed specific items, including that women should receive complete physical examinations and needed gynecological care. Adequate plans should additionally be made for anticipated increases in women veterans. In addressing the increasing needs of these women veterans, the Department of Veterans Affairs developed a plan for implementation of increased services for women veterans in 1982. This plan outlined the requirements of women veterans to include complete gynecological and obstetrical care.

It was not until 1988 that the creation of a Veterans Health Administration office to address women's health issues was created (U.S. GAO, 1999). Public Law 102-585, the Veterans Health Care Act of 1992, authorized expanded services for women veterans, including counseling for sexual trauma and specific health services, such as mammography, Pap smears, and general reproductive health care, including birth control and treatment of menopause. The Veterans' Health Care Eligibility Reform Act of 1996 eventually expanded services further to include maternity and infertility services (U.S. Department of Veterans Affairs, 2007b).

Military Culture

Culture is defined in many ways by numerous authors and dictionaries. It is defined by the Oxford English Dictionary as "the training, development, and refinement of mind, tastes, and manners; the condition of being thus trained and refined; the intellectual side of civilization. A particular form or type of intellectual development. Also, the civilization, customs, artistic achievements, etc., of a people, esp. at a certain stage of its development or history" (Oxford English Dictionary, 2007, 5a, 5b). It is described by Carrithers, who states that "individuals in relationships, and the interactive character of social life, are slightly more important, more real, than those things we designate as culture. According to the culture theory, people do things because of their culture; on the

sociality theory, people do things with, to, and in respect of each other, using means that we can describe, if we wish to, as cultural” (Carrithers, 1992, p. 34). Probably the best description of culture as it applies to the military is the cultural model described by Bonvillain (2000). She defines the cultural model as a culturally shared attitude based on people’s ideas about the world in which they live. Although the ideas are expressed in many ways, communication is the key to their transmission.

The uniqueness of the military culture separates it from the original cultures from which it was formed. Its origins are the mix of cultures from which it draws its membership and are as varied as the pebbles on a beach. The new culture that develops morphs into a military culture, with its own language, norms, relationships, and goals. This new culture requires knowledge and understanding from the medical personnel who operate within and in conjunction with it to assist the veteran population.

The changing roles of women in the military assure a change in the types of services they will require (U.S. GAO, 1982). It may be predicted that they will experience different kinds of injury as a result of their nontraditional service and will thus require different kinds of medical care.

Men and women held similar primary occupations in the Persian Gulf War (Carney et al., 2003). Persian Gulf War veterans experienced unusual syndromes following deployment to the area. The incidence of chronic fatigue syndrome tripled, and memory problems and muscle aches were more likely to be reported in these veterans than in troops deployed in other areas (Pierce, 2005). Women reported feeling ill more commonly than men when exposed to smoke from burning oil wells and trash or feces, mustard gas, or other petrochemical exposure (Carney, 2003). The needs of these women include relief and cure for a wide range of symptoms related to this exposure.

In studies of health outcomes for Gulf War-deployed veterans, there has been a higher prevalence of chronic multisystem illnesses (U.S. Department of Veterans Affairs, 2007a). Twenty-nine percent of deployed veterans met the definition of multisystem illness, compared with 16% of nondeployed veterans (U.S. Department of Veterans Affairs, 2007b). The most frequent medical conditions reported include fibromyalgia, chronic fatigue syndrome, and multiple chemical sensitivity. There are additional data that suggest that veterans deployed to the Gulf War are at increased risk for posttraumatic stress disorder (PTSD) and depression at a rate of 2 to 3 times that of the nondeployed veteran (U.S. Department of Veterans Affairs, 2007a). Those veterans who were deployed also appear to be at increased risk for amyotrophic lateral sclerosis. These studies were not gender specific, and the assumption can be made that women veterans experience the same or a greater incidence of symptoms as men. These studies also reviewed the reproductive health of women veterans and suggested an increased risk of spontaneous abortions and ectopic pregnancies in the deployed group.

Approximately 5% of veterans with spinal cord injuries and disorders (SCI&D) are women. This presents a more complex dimension for treatment and preventive care. Routine examinations for cervical cancer and breast cancer may be difficult to

accomplish due to the limitations of movement for the woman. For example, proper positioning for these examinations may be limited due to disability affecting trunk stability or hindered range of motion. In the absence of proper equipment or training of medical personnel, the obstacles may be so great that the examinations may be neglected. In fact, nearly one third of the women were refused care by at least one physician because of their disability (Lavela, Weaver, Smith, & Chen, 2006).

In their study, Lavela et. al. (2006) found that the general female veteran population had a higher rate of colon, breast, and cervical cancer screening than the woman veteran with SCI&D (Table 1). These percentages ranged from a 10% difference in cervical cancer screening to a 6.7% difference for breast cancer screening.

Table 1.
Use of Preventive Health Care Services Among Female Veterans

TABLE 3. USE OF PREVENTIVE HEALTHCARE SERVICES AMONG FEMALE VETERANS^b

	% Female veterans with SCI&D (n)	% General female veteran population (n)	P
Cholesterol checked within the past 5 years for women 45–75 years of age ^b	98.7 (75)	94.7 (221)	0.123
Dental care within past year ^c	56.3 (112)	68.8 (85)	0.004
Influenza vaccination within the past year for women ≥50 years of age ^d	69.4 (62)	66.3 (239)	0.610
Pneumonia shot ever received for women ≥65 years ^e	86.7 (15)	87.0 (114)	0.974
Colon screening in persons ≥50 years ^f			
Within past 5 years	59.0 (61)	72.1 (35)	0.023
Within past 10 years	67.2 (61)	92.0 (35)	<0.0001
Mammogram within past 2 years for women 40 years ^g	84.3 (102)	91.0 (87)	0.019
Pap smear for women 18–65 within past 3 years ^h	88.4 (95)	98.1 (90)	<0.0001

Source: Lavela et. al. (2006).

Even though colon cancer occurs 2 to 6 times more frequently in the SCI&D patient than in the able-bodied person, colon cancer screening was done 24.8% less frequently in these patients (Lavela et. al., 2006).

PTSD and depression are experienced by women veterans who experience military sexual assault (MSA). The rate of women veterans reporting MSA is 40% to 44% compared with the general civilian population, which reports MSA in a range of 22% to 27% (Schultz, 2006). Those female veterans experiencing MSA are more likely to endorse PTSD symptoms, and are more likely to exhibit alcohol and/or drug dependence (Schultz, Bell, Nqugle, & Polusny, 2006). In many of these instances, inpatient, gender-specific psychiatric units are required for treatment because female veterans are reluctant to discuss gender-specific issues or to receive gender-specific treatment in a heterogeneous environment.

In addition to the specialty treatment areas described earlier, primary care clinics must develop and expand to accommodate the ever-increasing numbers of women in the armed forces. Women represent the second fastest growing segment of the U.S. veteran population (Singh & Murdoch, 2007). Women describe poorer mental health with a higher prevalence of depression than men, but a lower prevalence of other chronic diseases (Singh & Murdoch, 2007).

Rural State

New Mexico may be viewed as a primarily rural state, with an 18.9% poverty rate in the rural areas and 15.4% poverty rate in the urban areas (U.S. Department of Agriculture, 2007a). Rural communities present their own inherent problems with access to health care. There are many definitions of rural, and few agree on a specific definition. A strictly quantitative view of the nature of rural communities comes from the government. The U.S. Census Bureau classifies 25% of the total population as rural and 97.5% of the total U.S. land area rural (U.S. Department of Agriculture, 2007b).

Rural definitions for the purpose of nursing and health care are needed to define the nature of the people, their community environment, and their health status. People who live in rural areas are often more self-reliant and independent than urban dwellers. They frequently develop their own strategies for managing their health needs to avoid traveling the long distances to formal health care agencies (Bushy, 2000).

Rural community environments include the long-time residents (indwellers) and the new comers to the community (outdwellers). This informal structure may increase the likelihood of isolation and rejection of the outdweller (Bushy, 2000). Many veterans are psychologically and socioeconomically disadvantaged, and have a higher disease burden than the nonveterans in the community (Wilson & Kiser, 1997). The impact of isolation to a veteran suffering from depression, for example, could be detrimental because of the separation from any community support.

People in rural areas view health differently than those in urban settings. Rural people often view health as the ability to work, and those who cannot work may be stigmatized (Bushy, 2000). A disabled veteran may be unable to work and may therefore be viewed as lazy in the rural community.

The rural nature of New Mexico accentuates the transportation problems that many of the women veterans experience when accessing health care. Chronic disease states, PTSD, depression, or disabilities such as SCI&D intensify the transportation problem. If the female veteran cannot overcome transportation difficulties, she may not receive health care. Poor mental and physical functioning combined with social isolation may impact her ability to obtain transportation. This in turn may lead to increased ill health, which often leads to impoverishment and a further decline in health status (Bushy, 2000).

Barriers

Fragmentation of care has been identified by many female veterans as a barrier to care in the VA medical facility (Singh & Murdoch, 2007). Women have historically been the minority group at any VA medical facility and, therefore, many female specific specialists, such as gynecologists, are not on staff. The VA facilities lacking these specialists refer women veterans to private contract facilities for gynecology examinations. The patients frequently have difficulty with transportation or scheduling these appointments, so they elect to leave the VA medical system and use private insurance to have all of their health care needs met at one location (Singh & Murdoch, 2007).

Lack of privacy and gender-specific specialty care were identified as primary concerns for female veterans (U.S. GAO, 1999). Lack of gender-specific facilities for inpatients was also mentioned. Women with diseases requiring inpatient isolation, as well as inpatient psychiatric care, had difficulty with admission in the male-dominated facilities. They felt discouraged from participating fully in group treatment sessions if men were present in the sessions.

Many women veterans have children in their care, either their own or their grandchildren. These veterans have identified child care issues as a barrier to accessing care at the VA medical centers.

Finally, many women veterans were simply unaware of the benefits or services available to them at the VA. The outreach programs developed to spread the awareness have not been as successful as was previously thought. Women did not know they were entitled to any benefits, so they did not register when they left the military. Identifying and contacting these women is warranted.

Slow Progress

Women veterans have traditionally been overlooked as a part of the military armed forces. Even before the days of Clara Barton and Florence Nightingale, women have been on the battlefields side by side with the fighting soldier, risking their lives to do their part for this country.

My own mother was an Army Nurse who served during World War II on the front lines during battle in England and France. Her unit landed behind the forces that stormed Utah Beach during the Normandy Invasion. They received the immediate casualties of that invasion, stabilized the wounded, and transferred them back to the main hospitals behind them on the battlefield in order to receive more casualties. On discharge from the Army after the war, none of the women who served were eligible for medical benefits.

It was not until 1979, 6 years after the end of the Vietnam war, that women veterans began to be recognized for their contributions, and it was decided by the U.S. government that they should have equal access to medical care. In 1982, in response to inquiries from

Senator Inouye, the VA identified many inadequacies in the medical services offered to female veterans.

The VA has made strides in overcoming some of these deficiencies, but recognizes that there are many areas that should be improved. As a result, the budget from Congress has reflected increased funding levels allocated to women veterans' programs, resulting in increases in use of health care systems (U.S. GAO, 1999). Research programs focusing on female Gulf War veterans are also increasing in number (U.S. Department of Veterans Affairs, 2007a)

Table 2
Health Care Services Related to Women Veterans

Source	Pap smears	Mammograms	Reproductive health	Total
Fiscal year 1994				
In-house	30,654	11,943	25,632	68,229
Referral	454	623	556	1,633
Contract	1,357	12,174	2,233	15,764
Total FY 1994	32,465	24,740	28,421	85,626
Fiscal year 1995				
In-house	35,491	15,110	^a	50,601^b
Referral	335	696	^a	1,031^b
Contract	1,270	12,542	^a	13,812^b
Total FY 1995	37,096	28,348	^a	65,444^b
Fiscal year 1996				
In-house	40,115	15,537	23,405	79,057
Referral	216	609	^a	825^b
Contract	2,521	14,657	4,053	21,231
Total FY 1996	42,852	30,803	27,458	101,113^b
Fiscal year 1997				
In-house	49,799	17,539	28,233	95,571
Referral	255	412	663	1,330
Contract	2,867	18,483	2,928	24,278
Total FY 1997	52,921	36,434	31,824	121,179
FY 1994-1997 increase				
	63.0%	47.3%	12.0%	41.5%

^aReproductive health data were not collected for these reporting periods.

^bExcludes reproductive health services.

Source: Department of Veterans Affairs, Veterans Health Administration, Health Care Services and Research Related to Women Veterans as Required by P.L. 102-585, as amended by P.L. 104-262. Reports for fiscal years 1994 through 1997.

Implications for Nursing

Women veterans are a unique group of women. They have the same complexities in their lives experienced by many women in today's society, such as low wages, children, or unemployment. Additional stressors that these women veterans experience may comprise complex medical issues, such as PTSD, depression, and more prevalent chronic illnesses.

The population of women veterans presents the challenges of health care access, complex medical issues, and resource management. I believe that nurses can have a major impact on the health care management of female military veterans. The majority of nurses are still female, which provides a camaraderie and calming effect for women who have experienced combat or military sexual assault.

Nurses serve as educators and patient advocates. In this role, they have the opportunity to improve the outreach endeavors to increase awareness of the health care programs for women veterans. As clinicians, nurses may impact resource utilization to improve the structure and staffing of units for gender-specific areas. Because the programs in New Mexico are in development stages, nurses have the opportunity and challenge to be instrumental in this development.

References

- Bonvillain, N. (2000). *Language, culture, and communication: The meaning of messages* (3rd ed.). Upper Saddle River, NJ: Prentice-Hall.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage Publications.
- Carney, C., Sampson, T., Voelker, M., Woolson, R., Thorne, P., & Doebbeling, B. (2003). Women in the Gulf War: Combat experience, exposures, and subsequent health care use. *Military Medicine*, 168, 654-661.
- Carrithers, M. (1992). *Why humans have cultures*. Oxford: Oxford University Press.
- Lavela, S., Weaver, F., Smith, B., & Chen, K. (2006). Disease prevalence and use of preventive services: Comparison of female veterans in general and those with spinal cord injuries and disorders. *Journal of Women's Health*, 15(3), 301-311.
- Oxford English Dictionary. (2007). *Culture*. Retrieved November 19, 2007, from http://dictionary.oed.com/cgi/entry/50055634?query_type=word&queryword=culture&first=1&max_to_show=10&sort_type=alpha&result_place=1&search_id=0YPh-fGNdcQ-16964&hilite=50055634
- Pierce, P. (2005). Federal nursing service award monitoring the health of Persian Gulf War veteran women. *Military Medicine*, 170, 349-354
- Schultz, J., Bell, K., Nqugle, A., & Polusny, M. (2006). Child sexual abuse and adulthood sexual assault among military veteran and civilian women. *Military Medicine*, 171, 723-727.

- Singh, J., & Murdoch, M. (2007). Effect of health-related quality of life on women and men's Veteran's Affairs (VA) health care utilization and mortality. *Society of General Internal Medicine*, 22, 1260-1267.
- U.S. Department of Agriculture (2007a). Economic research service. Retrieved November 28, 2007, from <http://www.ers.usda.gov/statefacts/NM.htm>
- U.S. Department of Agriculture. (2007b). National Agricultural library rural information center. Retrieved November 28, 2007, from http://www.nal.usda.gov/ric/ricpubs/what_is_rural.htm
- U.S. Department of Veterans Affairs. (2007a). *Annual report to Congress: Federally sponsored research on Gulf War Veterans' illnesses for 2006*. Retrieved November 19, 2007, from <http://VA.gov>
- U.S. Department of Veterans Affairs. (2007b). *VA programs for women veterans, women veterans health*. Retrieved November 26, 2007 from <http://www1.va.gov>
- U.S. Government Accountability Office Report: VA health care for women: Progress made in providing services to women veterans (1999). Retrieved November 19, 2007 from <http://gao.gov/GAO/HEHS-99-38>
- U.S. Government Accountability Office Report: Actions needed to insure that female veterans have equal access to VA benefits (1982). Retrieved November 19, 2007 from <http://gao.gov/GAO/HRD-82-98>.
- Washington, D. (2004). Challenges to studying and delivering care to special population: The example of women veterans. *Guest editorial, JRRD*, 41 (2), vii-viii.
- Wilson, N. & Kizer, K. (1997). The VA health care system: An unrecognized national safety net. *Health Affairs*, 16(4), 200-204.

11 Health Disparities and Health Care Access Issues in Cambodia

Unchalee Vatanasook Ice, RN, MSN

Cultivate a heart of love that knows no anger.

Cambodian Proverb

Cambodia was formerly known as Kampuchea. Since independence, the official name of Cambodia has changed numerous times, following the troubled history of the country. Cambodia has been known as the Kingdom of Cambodia, Khmer Republic, Democratic Kampuchea, the People's Republic of Kampuchea, and State of Cambodia (Figure 1). Cambodia, whose capital is Phnom Penh, is a country in Southeast Asia with a population of over 13 million people (CIA World Factbook, n.d.; Encyclopedia Britannica Online, n.d.).

Cambodia is one of the most impoverished and least developed countries in Southeast Asia; it has an inadequate health care system because of the massive destruction of its social structure and human resources under the Khmer Rouge. Most of Cambodia's population lives largely in rural areas. However, rapid urbanization is also occurring. Despite the steady process of social and economic reconstruction, a high incidence of infant and maternal mortality, communicable diseases, a high rate of illiteracy, and the lack of rural development continue to hinder the country's progress of development (Soeung et al., 2004; Soeung, Grundy, Kamara, & McArthur, 2007). The purpose of this chapter is to provide a brief overview of the history, background, geography, climate, politics, economy, educational system, and physical environment of Cambodia, in addition to its major health problems, issues in accessing the health care system, and health care technology, as well as the implications for nursing research.

Historical Overview

Between the 10th and 13th centuries, Cambodia was the successor state of the once-powerful Hindu and Buddhist Khmer Empire, which ruled most of the Indochinese Peninsula. Cambodia was attacked by the Thais and Cham (of Vietnam). These repeated attacks weakened the empire and resulted in a long period of decline. In 1863, the Cambodian King placed the country under French colonial protection. Thus, Cambodia became a part of French Indochina in 1887. In 1953, Cambodia gained independence from France following the Japanese occupation in World War II. Later, Cambodia faced

internal turmoil from civil war, and in 1975, Cambodia was under the rule of the Khmer Rouge Regime, which captured Phnom Penh and evacuated all cities and towns. Under the Khmer Rouge Regime, an estimated 1.5 million Cambodians died from execution, forced hardships, or starvation (Lanjouw, Macrae, & Zwi, 1999; Marshall, Schell, Elliot, Berthold, & Chun, 2005). In December 1978, the Vietnamese invasion forced the Khmer Rouge out into the countryside. This event initiated another 10 years of Vietnamese occupation and almost 13 years of civil war. Violent occupation and warfare between the Khmer Rouge and the Vietnamese holdouts continued throughout the 1980s. In 1989, peace efforts began in Paris, resulting in a comprehensive peace settlement 2 years later. An enforced cease fire and proposed deals with refugees brought about a mandated disarmament by the United Nations. In 1993, the United Nations sponsored elections, helping Cambodia to restore a period of peace under a new coalition government. Finally, in July 2003, elections were relatively uneventful and resulted in the formation of a coalition government (CIA World Factbook, n.d.; Encyclopedia Britannica Online, n.d.).

Because of the brutality of the Khmer Rouge Regime in the 1970s and 1980s, Cambodia's culture, economy, and social and political structure were in tatters, and the medical community and health care system were vastly destroyed. It is only in recent years that the restoration of peace, reconstruction efforts, and a measure of political stability and democracy have returned to Cambodia. Cambodia had been given assistance, primarily economic, by a number of developed nations, including Australia, France, Japan, Canada, and the United States. Funds raised in schools and by community groups in these developed countries have been used for the rebuilding of infrastructure and housing for Cambodians (CIA World Factbook, n.d.; Encyclopedia Britannica Online, n.d.).



Figure 1. Flag of Cambodia.

Cambodia's Politics

According to Cambodia's constitution of 1993, the political framework is a parliamentary, representative democratic monarchy. The head of the Cambodian government and of the multiparty system is the Prime Minister, whereas the king is the head of the state. The king appoints the Prime Minister on the advice and with the approval of the National Assembly. The Prime Minister and his ministerial appointees exercise executive power in the government. In addition, legislative power is vested in the executive and the two chambers of parliament, the Senate and the National Assembly of Cambodia. On October 29, 2004, King Narodom Sihamoni was crowned as Cambodia's new king after the surprise abdication from the throne by the new king's father, King Narodom Sihanouk. According to the Cambodia constitution, the monarchy is the symbolic head of state and does not exercise political power (Encyclopedia Britannica Online, n.d.).

According to the Encyclopedia Britannica Online (n.d.), Cambodia is rated 151st of 163 countries for unethical practices, making it one of the most corrupt countries on the planet. For this reason, Cambodia continues to face vast problems, such as runaway birth rates, an AIDS epidemic, a stagnant economy, widespread deforestation, an environment of violence exacerbated by a ruling party that is unwilling to abide by the rule of law, impatience among donors due to the government's slowness in introducing reform, and human rights abuses often traceable to members of the ruling party. Additionally, corruption has also added to the wide income disparities within the Cambodian society.

Cambodia and Her People

A Cambodia's citizen is usually identified as "Cambodian" or "Khmer," which strictly refers to ethnic Khmers. Cambodia is ethnically homogenous. More than 90% of its population is of Khmer descent and speaks the Khmer language, which is the country's official language. French is still spoken by some older Cambodians as a second language. In addition, French remains the language of instruction in various schools and universities that are still funded by the government of France. However, in past decades, many younger Cambodians and those who are in the business sector prefer learning English (Encyclopedia Britannica Online, n.d.).

Other ethnic groups in Cambodia include Chinese, Vietnamese, Cham, Khmer Loeu, Indians, and small numbers of animist hill tribes. Most Cambodians are Theravada Buddhist of Khmer extraction (95%), but the country also has a substantial number of predominantly Muslim Cham (3%) and Christians (2%; CIA World Factbook, n.d.).

Civil war and the conflicts following it have had a marked effect on the Cambodian population. The median age of the population is 21.3 years, with more than 50% of the population younger than age 25. Cambodia has the highest female-biased sex ratio at 0.95

males/females. In the population older than age 65, the female-to-male ratio is 1.6:1(Encyclopedia Britannica Online, n.d.).

Cambodia is ranked third by the United Nations Children’s Fund (UNICEF) for the prevalence of land mines in the world. Since 1970, this problem accounted for 60,000 civilian deaths, and thousands more injuries have been attributed to unexploded land mines left behind in rural areas. However, according to the UNICEF report in 2006, the number of casualties from land mines decreased by 50%, with fewer than 400 victims in 2006 compared with 800 victims in 2005 (CIA World Factbook, n.d.).

Geography and Climate

Cambodia has an area of 181,035 square kilometers (69,898 square miles). It shares a border with Thailand to its west and northwest, Laos to its northeast, and Vietnam to its east and southeast. Cambodia faces the Gulf of Thailand in the southern part of the country (Figure 2). Cambodia’s geography is dominated by the Mekong River, or the Tonle´ Thom (the great river) and the Tonle´ Sap (the fresh water lake), an important source of fish and wet rice cultivation. It is therefore considered the heartland of Cambodia. The country is divided into 20 provinces and 4 municipalities. These are further subdivided into districts, communes, villages, and islands. Phnom Penh is the capital and the largest population center, with over 1 million of Cambodia’s 13 million people residing there (CIA World Factbook, n.d.; Encyclopedia Britannica Online. n.d.).



Figure 2. Map of Cambodia.

Cambodia has two distinct seasons: rainy and dry. The rainy season runs from May to October, and the temperature could rise up to 40 °C, along with high humidity. Whereas in the dry season, the temperature can drop to 22 °C and humidity is much lower than the rainy season. The dry season lasts from November to April (CIA World Factbook, n.d.).

Economy

Despite recent progress, the Cambodian economy continues to stagnate and suffer from the effects of decades of harrowing civil war, internal conflict, and widespread corruption. The per capita income of \$ 2,490 (World Health Organization [WHO], 2005) is rapidly increasing, but it is low compared with other countries in the region. Most rural households depend largely on income from agriculture (75%) and its related subsectors, such as industry and services. Cambodia's major exports include rice, fish, timber, rubber, and garments. The major export partners of Cambodia include Singapore, Japan, Indonesia, Malaysia, Thailand, and the United States. War and its aftermath in the 1970s created famine in Cambodia. Desperate farming families consumed their rice seeds, and many traditional varieties of rice became difficult to find. However, with international aid from such countries as Australia, there has been assistance for Cambodia in improving its rice production. Thus, by 2000, Cambodia was once again self-sufficient in rice production (CIA World Factbook, n.d.; Encyclopedia Britannica Online, n.d.).

Long-term economic development in Cambodia remains a daunting task. The major challenge for the government over the next few decades will be reforming and improving an economic environment in which the private sector can create enough jobs to handle the demographic imbalance of Cambodia. As previously stated, more than 50% of the population is younger than 25 years old. The majority of Cambodia's population lacks formal education and productive skills, especially in the poverty-ridden rural areas, which suffer greatly from a remarkable lack of basic infrastructure (CIA World Factbook, n.d.).

Educational System

According to the Encyclopedia Britannica Online (n.d.), Cambodian's educational system was another casualty of war and ideology under the reign of terror. During the Khmer Rouge Regime, only primary schools were allowed to stay open. Older students attended irregularly scheduled classes in technical and political education. After the 1970s, the government gave high priority to primary education and reopened secondary schools and the institutions of higher learning. According to De Walque (2006), the secondary school system was in disarray, with only a few hundred teachers for the whole country. Table 1 indicates the low enrollment of teachers in secondary schools during the school year 1979-1980, with an increase during 1980s.

Table 1
Reconstruction of the School System in Cambodia (1979-1982)

	Number of teachers		
	1970-80	1980-81	1981-82
School level 1 (4 years of education)	21,605	30,316	37,000
School level 2 (3 years of education)	206	671	1,600
School level 3 (3 years of education)	20	28	78

Source: De Walque (2006).

However, it is estimated that fewer than half the students enrolled in primary school advance beyond the fifth grade. Most of the students who enroll in institutions of higher education are males. In 2004, the level of literacy of Cambodians was 73.6% of the total population. It is estimated that approximately four fifths of males (84.7%) and three fifths of females (64.1%) are literate, although some studies indicate that the trend of functional illiteracy is increasing. One factor contributing to the low level of literacy is the shortage of funds, books, equipment, and adequately trained and compensated staff in schools and colleges (Encyclopedia Britannica Online, n.d.).

Cambodia's Cultural Health

The term "culture" suggests many things to many people, such as language, customs, traditions, practices, and norms that are learned during the formative years of socialization. Geertz (1973) defines culture as "the social legacy the individual acquires from his group; a way of thinking and behaving" (p. 4). Additionally, culture is a collection of behavioral patterns and beliefs that constitute the standard for decision making in daily living activities (Patton, 2002). Culture is dynamic, constantly changing and evolving, with no culture being untouched or remaining static (Agar, 1994; Bushy, 2000; Carrithers, 1992). Regardless of the definition of culture being used, the underlying essence of this concept is that culture is learned and acquired. Spector (2003) adds that an individual's capacity to learn culture is genetic, although the subject matter is not genetic; thus, an individual learns and acquires culture through his or her family and social group. Within the context of this chapter, the following definition of culture will be used: the culmination of stimuli for each individual based upon that individual's response to the collective and or individual stimulus through the process of socialization from family and social community impacting that individual. The social or cultural beliefs, physical, emotional, and spiritual stimuli for each individual result in learned behaviors.

Cambodian health and illness beliefs and practices are influenced by the Buddhist philosophy that teaches acceptance of one's fate. Cambodian ways of being and thinking are deeply formed by the accountability to and the well-being of one's social group. Thus, this group's orientation encourages one to depend on immediate or extended family in terms of decision making and assistance. Seeking assistance outside of one's

immediate family is discouraged. There is also a propensity to keep problems concealed, therefore enabling the family to “save face” maintain family honor and dignity, and avoid social stigma in the larger community, particularly the tendency to keep HIV/AIDS hidden (Geurtsen, 2005).

Health is considered a state of equilibrium, and illness occurs when equilibrium is disturbed. Such disturbances are viewed holistically as affecting body, mind, and spirit (Davis, 2000; Muecke, 1983). The practice of the traditional Ayurvedic health system aims to maintain and balance the energy and health of the mind and the body. In addition, this practice emphasizes an avoidance of stress, and maintains a moderate harmonious, balanced life (Davis, 2000; Muecke, 1983). Because of the influence of Chinese medical tenets and practices, Chinese folk remedies that are widely practiced among the Khmer include acupuncture, massage, herbal concoctions and poultices, and the practice of dermabrasive treatments, such as pinching, rubbing, burning, and cupping. Dermabrasive treatments are widely practiced among Cambodians, Laotians, and Vietnamese. They are perceived as a means to relieve such ailments as muscle pain, sinusitis, colds, headaches, sore throat, coughs, difficulty breathing, fever, and diarrhea (Davis, 2000; Muecke, 1983).

Rural Cambodia

Like the concept of culture, there is no one universal definition of “rurality” that encompasses all the aspects of rural areas. For this reason, research in rural health has been hampered by the lack of a practical and valid definition of rurality. Defining rurality can be elusive and often relies on one’s stereotype and personal experiences. Various definitions of rurality exist in the literature; however, there is no consensus on the definition of what represents a rural area (Muula, 2007). The Oxford English Dictionary Online (2007) defines rurality as “rural quality or character, rusticity; country like manners or scenery.” This definition implies pastoral landscapes, isolation, low population density, unique demographic structures, and low socioeconomic makeup. It is important to have a common definition of rurality in terms of establishing criteria used for the allocation of limited precious resources and to make informed policy for rural health issues (Hart, Larson, & Lishner, 2005; Weinert & Burman, 1999). Therefore, it is crucial to specify which components of rurality are appropriate to the phenomenon being studied and then utilize a definition that most captures those components. The definition of rurality in the context of this chapter will encompass holism and will be locally dependent on the behavioral, attitudinal, and cultural aspects, demographic structures, and environmental characteristics of the communities.

An extensive literature review revealed no definition of rurality in Cambodia. As previously elucidated, approximately 85% of the population lives in rural areas; however, only 13% of government health care workers work there (Kvedar, Heinzelmann, & Jacques, 2006). Additionally, inequities within Cambodian society in income and access to health care and education are distinctly greater in many remote rural regions. Moreover, Cambodia has the lowest usage rates of health care services in the region (Kvedar et al., 2006).

Major Health Problems in Cambodia

As previously stated, Cambodia has some of the worst health indicators in Southeast Asia. According to the CIA World Factbook, in 2007, the Ministry of Health (MoH) estimated that life expectancy at birth is 59.27 years for males and 63.4 years for females. In addition, in 2003, the estimated infant mortality rate was 58.45 deaths/1,000 live births., along with the incidence rate A total of 170,000 people have HIV/AIDS, nearly half of whom are women (WHO, 2005), and 15,000 HIV/AIDS patients die annually. All these factors contribute to the poor health indicator picture in Cambodia (CIA World Factbook, n.d.).

The many diseases that affect the health and well-being of Cambodians are a common obstacle to developing countries. Chatterje (2005) indicates that tetanus, diarrhea, acute respiratory infections, and other diseases that are preventable by immunization are prevalent among infants and young children. Among women of reproductive age, there are complications of pregnancy, abortion, and delivery, often superimposed over severe anemia.

HIV/AIDS

The rapid spread of HIV infection in Southeast Asia poses a great challenge to the MoH. In 2003, 1.9% of Cambodia's 13 million people had HIV/AIDS, and the country is considered to have the highest HIV prevalence in Asia (WHO, 2005). However, Cambodia is making progress in the fight against HIV/AIDS with support from international donors, such as the Global Fund. Cambodia has implemented HIV prevention programs for the last 10 years. As a result of this intervention, the HIV prevalence in prenatal clinic attendance has declined from a rate of 2.2% in 1999 to the current level of 1.9%. The HIV epidemic in Cambodia was largely caused by sexual transmission, thus prompting the government of Cambodia to institute a 100% condom use policy (Charles, 2006; Hill, & Heng, 2004).

Tuberculosis

Worldwide, tuberculosis (TB) is one of the most common causes of death among persons infected with HIV. In Cambodia, both the incidence of TB infection and the incidence of HIV infection are significantly high. The TB case rate in Cambodia is estimated at 508 per 100,000 persons, the highest in Asia. This estimate is approximately 100 times higher than the U.S. rate (WHO, 2005). With assistance and support from the Centers for Disease Control and Prevention (CDC) and the U.S. Agency for International Development (USAID), the Cambodian MoH has developed a pilot project to screen HIV-infected individuals living in Banteay Meanchey Province for TB disease. This province is a rural province located in northwestern Cambodia, with an estimated 2004 population of 651,000 people and an HIV prevalence in prenatal clinic patients of 4.4%, which is twice that of Cambodia's overall rate (WHO, 2005).

Mental Health Issues

Mental health problems are another major health challenge. The history of violence in the last few decades has left many Cambodians with psychological trauma (Henderson et al., 2005). Heng and Key (1995) state that the MoH recognizes and is concerned that highly traumatizing events, such as prolonged war, the dislocation of families, loss of relatives, and the constant fear of injuries from land mines, have resulted in psychiatric morbidity. However, the entire infrastructure of Cambodian society was disrupted after the war, leaving behind few human resources and facilities capable of providing effective services for general medical and mental health services (Somasundaram, van de Put, Eisenbruch, & de Jong, 1999; Stockwell, Whiteford, Townsend, & Stewart, 2005). In addition, the widely held belief that mental illness is untreatable and thus less legitimate than physical illness adds to the problem. For this reason, Cambodia is also dually dependent on traditional healing practice for mental health treatment (Somasundaram et al., 1999).

Cambodians have undergone psychological trauma in the last few decades; however, the social and psychological consequences of war to civilian populations has only been recently recognized and studied (Henderson et al., 2005). The recent history of Cambodia is one of war, genocide, massive trauma, and displacement. In 2004, according to the United Nations High Commissioner on Refugees, there were approximately 19.2 million refugees, internationally displaced persons, and asylum seekers worldwide. Researchers have examined the postconflict psychiatric sequelae in these populations and have found a high level of violence exposure, which often involved multiple traumas, as well as significant mental health problems (Marshall et al., 2005). Additionally, although there is recognition of the social and psychological impact of war on the civilian population, little evidence indicates that the planning and implementation of mental health services to cope with the consequences of mass violence has occurred.

Studies have shown that depression and posttraumatic stress disorder (PTSD) are the most common psychiatric disorders among the refugee population (Marshall et al., 2005). De Jong et al. (2001) reported a prevalence rate of assessed PTSD of 28.4% in Cambodia. Additionally, researchers also indicated that conflict-related trauma after the age of 12 years was a major risk factor for PTSD, although torture was not a risk factor. This study indicates that there is a great need for mental health care for the Cambodian population.

Stockwell et al. (2005) stated that the mental health system is significantly underdeveloped in Cambodia. When the Pol Pot regime took power in 1975, there were only two practicing psychiatrists and one 800-bed mental health hospital built during the French colonial period, which provided custodial care. Unfortunately, the killing of both psychiatrists and many patients during the violent conflicts along with a lack of educational opportunities has left Cambodia with no psychiatrists and psychiatric institutions for the last 20 years. In 1995, psychiatry was included in the medical and nursing curricula in Cambodia (Somasundaram et al., 1999).

An array of different approaches are required to tackle Cambodia's health problems. In 1992, the Mental Health Subcommittee (MHSC) was formed to provide governance for the redevelopment of mental health services in Cambodia. The MHSC plays a significant role, although with limited success at times, because the redevelopment and educational opportunities in Cambodia were primarily financed by external assistance through the international nongovernment organization (NGO) sector. This external assistance has been required because there was a failure by the government to allocate financial resources to meet the mental health needs of the population. Despite these complex factors, mental health redevelopment achievement in the past decades includes a limited mix of primary and acute mental health care facilities (private and public; Stockwell et al., 2005).

According to Stockwell et al. (2005), in 2002, there were approximately 350 mental health care providers in Cambodia, including 20 psychiatrists, 20 psychiatric nurses, and 215 clinical psychologists. However, there were no trained psychiatric social workers or occupational therapists. In addition, the WHO recognizes a need for mental health policy and planning to promote efficient and effective access to mental health services. WHO has allocated resources to develop a draft of a National Health Plan 2003-2022 for Cambodia (Stockwell et al., 2005). However, there is a concern that the plan may sit on the shelf because of the failure to engage with the MoH, an absence of a broader societal pressure, and the infancy of stakeholder development.

Prevalence of Malaria and Dengue Fever

Cook (2002) stated that most of the tropical diseases are on the brink of extinction, and currently, more areas have been successfully managed by pharmacological intervention. However, some of these tropical diseases, such as malaria and dengue fever, are still considered persistent infectious diseases in Cambodia and will continue to require a greater investment in research and continuation of surveillance with regard to the prevalence and spread of diseases. Additionally, there are other prevalent types of infectious disease in Cambodia, including food-borne and water-borne diseases, such as bacterial and protozoan diarrhea, hepatitis A, and typhoid fever. Vector-borne diseases also include dengue fever and malaria. Another vector-borne disease, Japanese encephalitis, is endemic in some locations in Cambodia (Dove, 1998; Kmietowicz, 2007).

The climate of Cambodia is optimal for the spread of vector-borne viral infectious diseases, such as malaria and dengue fever. Cambodia has experienced repeated outbreaks of dengue fever, although this disease seems to be on the rise worldwide, causing public officials to search for ways to halt the pathogen's progress (Dove, 1998). Recently, Cambodia faced another epidemic of hemorrhagic dengue fever. In June 2007, according to the Cambodian Red Cross, there were 16,986 cases of dengue hemorrhagic fever and 174 deaths throughout the country (Kmietowicz, 2007).

The Cambodian government has responded to this epidemic by spraying insecticide streetwide to try to control the *Andes* mosquito. This type of mosquito breeds primarily in manmade containers, such as discarded tires and uncovered water containers, which are

largely found in indoor areas inaccessible to sprays. Fumigation is a preferred method, but it is very costly and ineffective (Dove, 1998). The public is being educated to cover all water containers through the media, such as the local radio stations (Kmietowicz, 2007).

Although the highest prevalence of malaria is mainly in developing countries, the threat of spreading to industrialized nations, which has occurred in the past, still exists. The mortality rate for this disease is significantly high (Cook, 2002). Cook (2002) indicated that 500,000 to 2 million people die of malaria each year. Of those who died from the disease, approximately 1 million deaths occurred in children under 5 years of age. The cause of death among children was attributed to malaria alone or in combination with other diseases.

In Cambodia, estimates of the malaria burden rely on a public health information system that fails to record cases occurring among remote countryside populations. The MoH states that the remote forested areas, where health services are weakest and security is poorest, are the most affected by this deadly disease. Moreover, malaria cases were not recorded in the private sectors, such as in private clinics or offices of traditional healers, and among asymptomatic carriers. Therefore, there is a lack of accurate data regarding estimates and associated risk factors of current malaria situations in Cambodia. Factors that are attributed to inadequate control of this disease are poor compliance with drug regimens and unregulated dispensing of antimalarial drugs in the private sectors, resulting in drug resistance for the treatment of malaria (Incardona et al., 2007).

Primary Health Care System

Despite having the most alarming health indicators in Southeast Asia, such as a high maternal and infant mortality rate (Chatterjee, 2005; Soeters & Griffiths, 2003), the utilization of public health services is low in Cambodia, with estimates of 0.3 annual contacts per capita (Jacobs & Price, 2004). In addition, preventive and curative public health services, particularly hospital services, are less frequently accessed by poor people (Meessen, Van Damme, Tashobaya, & Tibouti, 2006).

To meet the challenge of building an accessible and stable health care system, the MoH has been implementing a Health Coverage Plan since 1996, while coordinating extensive aid from foreign contributors and donors (Hardeman et al., 2004). With funding support from international banks and donors, Cambodia's health facilities have been rebuilt and renovated, and now consist of a "net work of 935 health centers, 76 operational health districts, 24 provincial health departments, and more than 20 national health programs, including the National Immunization Program (NIP)" (Soeung et al., 2007, p. 2). However, "the structural constraints that prevent the plan's realization in terms of accessibility and quality of care" (Hardeman et al., 2004, p. 23) and public health services still remain underutilized.

However, the MoH continues to search for better ways of financing health systems. Common to many of these systems are problems with inadequate mobilization of

resources. Additionally, inefficient and inequitable utilization of existing health resources prove problematic. The poor and the most vulnerable groups, such as HIV and TB patients who carry the burden of social stigma and need health care the most, are also the most affected by these shortcomings (James et al., 2006). A solution for this issue has global magnitude in relation to the need to transfer resources from high-income to low-income countries. National policy makers need to make greater efforts in health care policy planning to meet the needs of poor people (Meessen et al., 2006). Another option policy makers might consider is the abolition of user fees, which are charged to health service users by public health facilities. The user fees policy was one of the key strategies established in the 1980s and widely adopted among low-income countries. However, according to Meessen et al. (2006), many studies have shown that the introduction of this policy rarely benefits the poor. A call for abolishment of user fees in low-income countries has caused much debate among international aid agencies. However, differences of opinions remain. In addition, the World Bank, who finances health care in developing countries, asserts that “user fees could be a necessary evil” (p. 2253). According to the claim by advocates of user fees, “free services reduce utilization because of inefficiencies leading to the quality and time costs borne by the users and because of the low values ascribed to free service” (Jacobs & Price, 2004, p. 310). In addition, some advocates argue that selective user fees encourage the clients to use appropriate delivery service by charging higher prices at the hospital outpatients clinics (tertiary care level) than at the health post clinics (primary care level). This action will encourage the appropriate use of the primary care facility (Jacobs & Price, 2004).

Meessen et al. (2006) propose two strategies that national policy makers should consider when making choices in implementing health care policies that are favorable to the poor. These include the “abolition of user fees and the establishment of health equity funds in Cambodia” (p. 2253). Although the authors state that these two strategies are not the only alternatives, “they mark the range of possibilities within the public sector and address strategic questions: should we allocate the supplementary resources to universal solutions, or to interventions that target poor people?” (p. 2253). In addition, the authors argue that the equity funds in Cambodia will help to address the issue of participation costs. The benefit package will cover the costs of user fees to the hospital, food, and additional expenses, along with reimbursing patients for transportation costs. Social workers employed by the health equity funds will be available to assist patients during hospital stays. The presence of social workers will help to tailor care according to the patient’s individual needs. Therefore, the benefit of health equity funds is substantial, because their specific aim is to keep the direct health care cost at a minimum for poor households (Meessen et al., 2006). The success of this program depends largely on the appropriateness, effectiveness, and attractiveness of the benefit package. However, some critics have expressed the view that the assistance should not be restricted to acute care and should also be extended to improve access to treatment for chronically ill patients and those who suffer from HIV/AIDS, TB, and diabetes (Meessen et al., 2006).

Health Care Technology

Despite great medical progress, the diffusion of health innovation to global citizens has been limited and uneven (Ratzan, 2002). To bridge the gap between those in need of health care and those willing to share their knowledge and expertise, the general principle of telemedicine or telehealth concept was derived. Additionally, in May 2005, the World Health Assembly met in Geneva and acknowledged that telehealth could play a significant role in providing access to health care for at-risk populations worldwide (Lugn, 2006).

Telehealth

Cambodia faces many challenges in providing health care, including the shortage of qualified health care professionals, insufficient infrastructures and medicine, and poor health indicators status. The MoH has acknowledged that the inefficient distribution of health care facilities in poorer rural areas is a significant problem. To overcome such challenges, telehealth medicine is being explored by developing nations, including Cambodia (Kvedar et al., 2006; Varghese & Scott, 2004). Varghese and Scott (2004) state that telehealth provides “the potential to transcend geopolitical boundaries, yet telehealth policy developed in one jurisdiction may hamper applications in another” (p. 61). Therefore, a deeper understanding of current or related policy and regulatory requirements is crucial for telehealth to realize its global potential.

In addition, communication technologies have the potential to help overcome some of the challenges by transporting and providing knowledge in medicine to even the most inaccessible areas of the globe along with increasing health care provider efficiency (Brandling-Bennett et al., 2005) Brandling-Bennett et al. (2005) conducted a pilot study of a telemedicine clinic in rural Cambodia from February 2001 through June 2003 by providing consultations via e-mail. The result of the study indicated that “store-and-forward e-mail” consultation for mobile nonphysician health care workers is a feasible model for delivering care in remote areas. However, the authors indicate the need for more research to assess improvement in health status, cost effectiveness, and sustainability of the telemedicine programs.

Implications for Research

It appears that Cambodia is still facing an enormous challenge, particularly in the health care arena, and needs to find ways to improve access to health care services that provide quality and fairness to the poor. Perhaps Cambodia should develop partnerships with developed countries, such as the United States, France, or Australia, as most of the problems that Cambodia is facing today will require multisectoral, multidisciplinary, and muticomponent efforts (Richardson & Allegrante, 2002). To advance health care in this country, Cambodia needs not only the health care sector but the synergy that is created when government, non-profit organizations, and private sectors put their concerted efforts into creating policies that can shape the global economic and environmental conditions

that will promote and sustain health in this small country (Richardson & Allegrante, 2002).

The contracting approach may be a possible tool for the MoH to utilize in improving health service delivery more efficiently and effectively than the traditional reform approach (Soeters & Griffiths, 2003). Schwartz and Bhushan (2004) state that experiences from other sectors in developing countries and from the health sectors in developed countries have led to another option and an increasing interest in using NGOs contractors to improve the delivery of primary health care services in developing countries efficiently and effectively. There are a few studies being conducted to examine the efficiency and effectiveness of this option. For example, a large-scale quasiexperimental study using NGO contractors in Cambodia from 1999 and 2001 was conducted to examine immunization equity both before and after delivery of services. Results suggested that there was a substantial increase in the proportion of children who were fully immunized in all districts. In fact, children in 50% of the poorest households in the districts served by NGO contractors were more likely to be fully immunized than children living in similar conditions in districts using the government's approach (Schwartz & Bhushan, 2004).

There is much more to be done to redefine a minimum package of primary health care activities and to make its available to "all" Cambodians. On the personal level, I feel that there is little progress being made toward providing mental health services to those who are in need in Cambodia. The most obvious reasons for this are insufficient funding for operating costs and salaries, and a lack of sufficiently trained staff. Health care providers and the general public need to be aware of the devastating problem and make a plea to the government for action. I understand that the foundation of the health sector is constrained by the economic and institutional environment in which it has to operate. However, the government needs to stress a strategy that focuses on ensuring access to sufficient financial and human resources, and increases utilization of services to meet the needs of the population.

Additionally, health care services need to find ways to reduce financial and technical dependence on external donors and to establish long-term sustainability. Cambodia need not look far for dignifying examples. In the past few decades, Cambodia's neighboring countries, such as Thailand, Malaysia, and Sri Lanka, have all significantly improved health indicators in the area of child and maternal health through synergy of strategies, including political commitment, strengthening of the health systems, and a supportive policy environment, as well as by boosting the midwifery programs (Chatterjee, 2005). When positive examples and action collide, the resultant explosion can only be a positive outcome for the health of all Cambodians. Lastly, in regard to Cambodia's future outlook, although the country continues to face many challenges in providing accessible, efficient, and effective health care services to its citizens, the tools and possibilities exists to make effective health care a reality.

References

- Agar, M. (1994). *Language shock: Understanding the culture of conversation*. New York: Harper Collins.
- Brandling-Bennett, H., Kedar, I., Pallin, D., Jacques, G., Gumley, G., & Kvedar, J. (2005). Delivering health care in rural Cambodia via store-and forward telemedicine: A pilot study. *Telemedicine and e-Health*, 11(1), 56-62.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage Publications.
- Carrithers, M. (1992). *Why humans have culture: Explaining anthropology and social diversity*. New York: Oxford University Press.
- Chatterjee, P. (2005). Cambodia tackles high maternal mortality. *Lancet*, 366, 281-282.
- Charles, M. (2006). HIV epidemic in Cambodia, one of the poorest countries in Southeast Asia: A success story. *Expert Review Anti Infection Therapy*, 4(1), 1-4.
- CIA The World Factbook. *Cambodia*. Retrieved November 12, 2007, from <http://www.cia.gov/library/publications/the-world-factbook/print/cb.html>
- Cook, J. A. (2002). Tropical diseases. In C.E. Koop, C.E. Pearson, & M.R. Schwarz (Eds.), *Critical issues in global health* (pp. 135-143). San Francisco: Jossey-Bass.
- Davis, R. E. (2000). Cultural health care or child abuse? The Southeast Asian practice of Cao gio. *Journal of the American Academy of Nurse Practitioner*, 12(3), 89-95.
- De Jong, J., Komproe, I. H., Omeren, M. V., Masri, M. E., Araya, M., Khaled, N., et al. (2001). Lifetime events and posttraumatic stress disorder in 4 postconflict settings. *JAMA*, 286(5), 555-562.
- De Walque, D. (2006). The socio-demographic legacy of the Khmer Rouge periods in Cambodia. *Population studies: A journal of demography*. Retrieved November 10, 2007, from <http://dx.doi.org/10.1080/00324720600684767>
- Dove, A. (1998). Dengue fever on the increase. *Nature Medicine*, 4(5), 543.
- Geertz, C. (1973). Thick description: Toward an interpretive theory of culture. Retrieved May 18, 2007, from www.stanford.edu/davidf/qualitative151/geertz.pdf
- Geurtsen, B. (2005). Quality of life and living with HIV/AIDS in Cambodia. *Journal of Transcultural Nursing*, 16(41), 41-49.
- Hardeman, W., Van Damme, W., Van Pelt, M., Por, I., Kimvan, H., & Messen, B. (2004). Access to health care for all? User fees plus a health equity fund in Sotnikum, Cambodia. *Health Policy and Planning*, 19(1), 22-32.
- Hart, L. G., Larson, E. H., & Lishner, D. M. (2005). Rural definition for health policy and research. *American Journal of Public Health*, 95(7), 1149-1155.
- Henderson, D. C., Mollica, R. F., Tor, S., Lavelle, J., Culhane, M. A., & Hayden, D. (2005). Building primary care practitioner's attitudes and confidence in mental health skills in a post-conflict society: A Cambodian example. *Journal of Nervous and Mental Disease*, 193(8), 551-559.
- Heng, M. B., & Key, P. J. (1995). Cambodia health in transition. *British Medical Journal*, 311, 435-437.
- Hill, P. S., & Heng, T. L. (2004). Women are silver, women are diamonds: Conflicting images of women in the Cambodian print media. *Reproductive Health Matters*, 12(24), 104-115.

- Incardona, S., Vong, S., Chiv, L., Lim, P., Nhem, S., Sem, R., et al. (2007). Large-scale malaria survey in Cambodia: Novel insights on species distribution and risk factors. *Malaria Journal*, 6(37), 1-12.
- Jacobs, B., & Price, N. (2004). The impact of the introduction of user fees at a district hospital in Cambodia. *Health Policy and Planning*, 19(5), 310-321.
- James, C. D., Hanson, K., McPake, B., Balabanova, D., Gwatkin, D., Hopwood, I., et al. (2006). To retain or remove a user fees?: Reflections on the current debate in low- and middle-income countries. *Application Health Economy Health Policy*, 5(3), 137-153.
- Kmietowicz, Z. (2007). Dengue fever epidemic in Cambodia affects 17,000. *British Medical Journal*, 335, 61-67.
- Kvedar, J., Heinzelmann, P.J., & Jacques, G. (2006). Cancer diagnosis and telemedicine: A case study from Cambodia. *Annals of Oncology*, 17, 37-42.
- Lanjouw, S., Macrae, J., & Zwi, A. (1999). Rehabilitating health services in Cambodia: The challenge of coordination in chronic political emergencies. *Health Policy and Planning*, 14(3), 229-242.
- Lugn, N. (2006). Global health care-bridging the gap. *Journal of Telemedicine and Telecare*, 12, 109-110.
- Marshall, G. N., Schell, T. L., Elliot, M. N., Berthold, S. M., & Chun, C. (2005). Mental health of Cambodia refugees 2 decades after resettlement in the United States. *JAMA*, 294(5), 571-579.
- Meessen, B., Van Damme, W., Tashobaya, C., & Tibouti, A. (2006). Poverty and user fees for public health care in low-income countries: Lessons from Uganda and Cambodia. *Lancet*, 368, 2253-2257.
- Muecke, M. A. (1983). Caring for Southeast Asian refugees patients in the USA. *American Journal of Public Health*, 73(4), 431-438.
- Muula, A. S. (2007). Personal view: How do we define 'rurality' in teaching on medical demography? *Rural and Remote Health*, 7(653), 1-7.
- Oxford English Dictionary Online. Retrieved October 23, 2007, from <http://dictionary.oed.com/cgi/entry/50210743?>
- Patton, M.Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks: Sage Publications.
- Ratzan, S. C. (2002). Effective communication as the path to ideal health. In C. E. Koop, C. E. Pearson, & M. R. Schwarz (Eds.), *Critical issues in global health* (pp. 337-345). San Francisco: Jossey-Bass.
- Richardson, W., & Allegrante, J. (2002). Shaping the future of health through global partnerships. In C. E. Koop, C. E. Pearson, & M. R. Schwarz (Eds.), *Critical issues in global health* (pp. 375-383). San Francisco: Jossey-Bass.
- Schwartz, J. B., & Bhushan, I. (2004). Improving immunization equity through a public-private partnership in Cambodia. *Bulletin of the World Health Organization*, 82(9), 661-667.
- Soeters, R., & Griffiths, F. (2003). Improving government health services through contract management: A case from Cambodia. *Health Policy and Planning*, 18(1), 74-83.
- Soeung, S. C., Grundy, J., Biggs, B. A., Boreland, M., Cane, J., Samnang, C., et al (2004). Management systems response to improving immunization coverage in

- developing countries: A case study from Cambodia. *Rural and Remote Health*, 4(263), 1-22.
- Soeung, S. C., Grundy, J., Kamara, L., & McArthur, A. (2007). Developments in immunization planning in Cambodia-rethinking the culture and organization of national program planning. *Rural and Remote Health*, 7(630), 1-13.
- Somasundaram, D. J., van de Put, A. C. M., Eisenbruch, M., & de Jong, J. T. V. M. (1999). Starting mental health services in Cambodia. *Social Science & Medicine*, 48, 1029-1046.
- Spector, R. E. (2003). *Cultural diversity in health and illness* (6th ed). Upper Saddle River, NJ: Prentice Hall.
- Stockwell, A., Whiteford, H., Townsend, C., & Stewart, D. (2005). Mental health policy development: Case study of Cambodia. *Australian Psychiatry*, 13(2), 190-194.
- The Encyclopedia Britannica Online. *Cambodia*. Retrieved November 12, 2007, from <http://www.britannica.com/eb/article-52470>
- Varghese, S., & Scott, R. (2004). Categorizing the telehealth policy response of countries and their implications for complementarity of telehealth policy. *Telemedicine Journal and e-Health*, 10(1), 61-67.
- Weinert, C., & Burman, M.E. (1999). The sampler quilt: A metaphor of rural communities. In A. S. Hinshaw, S. L. Feetham, & J. L. E. Shaver (Eds.), *Handbook of clinical nursing research* (pp. 75-83). Thousand Oaks, CA: Sage Publications.
- World Health Organization. (2005). *Cambodia*. Retrieved November 12, 2007, from <http://www.who.int/countries/khm/en/>

12 Home: A Rural Elder's Last Wish

Lourdes Ticas, APRN, BC, MSN, MPA

Although elders have expressed that they prefer to stay in their homes for as long as possible (American Association of Retired Persons [AARP], 2000), long-term care settings, such as nursing homes, remain the predominant care setting for many rural elders (Rhoades & Sommers, 2003). This is a sad reality today and signifies a call for change. Interventions directed toward offering rural elders more choices in long-term care, including the possibility of staying in their homes, should be a priority. Home to these elders represents memories, years of tradition and culture, and opportunities to stay among loved ones. It is the place that defines who they are and where they find meaning in their lives.

The needs of rural elders receive recognition at the local, state, national, and global levels. Countries all over the world share similar concerns of geographic barriers, poverty, substandard living conditions, poor access to health care, and poorer health among the elderly (Global Action on Aging, 2007). The purpose of this chapter is to highlight current trends in rural settings and to address two key issues: the barriers to financing long-term care, and the need for alternative models for long-term care services in rural communities. It is the author's goal to identify culturally sensitive models of care that offer personal long-term care choices.

Background and Significance

Current Patterns and Trends

There are currently three patterns of change in the United States: a changing demographic profile and population distribution, an increasing number of adults over 65, and an increasing life expectancy. One fifth of the elderly population aged 65 years and older, or 8.2 million, live in rural areas (Coburn & Bolda, 2001). Rural dwellers are more likely to be older, ethnically diverse, and female. Rural populations are getting older due to increased outmigration of rural youth. There are decreasing proportions of Hispanic Whites and increasing Hispanic, Asian, American Indian or African American ethnic groups. In 2000, two thirds of the aging rural population 75 years or older was female. Outmigration of rural youth affects formal and informal networks of care. Children are living further away from their parents (Kirschner, Berry, & Glasgow, 2006). The changing demographic profile clearly impacts health care delivery, especially with the increase in older rural residents.

Money Matters

Rural elders often are described as having lower incomes, more likely to be poorer, and having less formal education (Coburn & Bolda, 2001) than their urban counterparts. They secure a major portion of their income from Social Security, and their homes are more than likely to be in a substandard state. Poverty in rural areas has been associated with poorer health and lack of access to health care (Coburn & Bolda, 2001).

Funding for health services comes mainly from Medicare and Medicaid programs, more so than from other private or supplemental insurance. Nearly 10 % of older people living in rural areas receive Medicaid. Policy changes that affect reimbursement rates in Medicare and Medicaid will clearly impact individuals receiving health care in rural areas (Coburn & Bolda, 2001).

Health Perspective

Rural persons will most likely rate their health as fair or poor, which is an accurate perception because studies describe their health as poorer than their urban counterparts (Coburn & Bolda, 2001; Kirschner et al., 2006). Health disparities are associated with difficulty accessing health and social services due to geographic barriers, such as difficulty with transportation and distance. Most rural places have lower population densities, making it difficult to maintain private practices. Many will have to travel long distances to see a provider (Coburn & Bolda, 2001).

Because there is a higher number of nursing homes and fewer home-based and community programs (Coburn & Bolda, 2001), rural elders are left with few choices when informal networks are unavailable. The supply of nursing homes is 43 % greater in rural settings (Coburn & Bolda, 2001). Nursing homes become the only choice by default, which may greatly impact quality of life for these elders.

How Does Health Policy Affect Rural Care?

There are generally lower reimbursement rates for rural nursing homes and services. The Balanced Budget Act 1997 (PL 105-133) slashed \$58 billion more than anticipated or intended by Congress from virtually every facet of Medicare. This placed an additional burden on rural providers (National Rural Health Association [NRHA], 2001), impacting care.

In 1999, Congress reenacted the Balanced Budget Refinement Act of 1999 (PL 106-113) in the final weeks of that year, restoring \$2 billion to the long-term care industry. This initiative was too late to save weak facilities. Medicare, Medicaid, and the State Children's Health Insurance Program Benefits Improvement and Protection Act of 2000 (PL 106-554) went a step further by providing fiscal relief to nursing homes by 16.67 %. This resulted in an increase from 0.5% below market rates to full market rate in fiscal year 2001. These, however, were only temporary fixes (NRHA, 2001).

Informal Care of Rural Elders

Rural elders value their independence and control (Magilvy & Davis, 2000). They are reluctant to burden families but do not want help from outside providers. They place value on reciprocity, which means the ability to provide something in return to their sons and daughters.

The family unit is highly valued in rural communities (Congdon & Magilvy, 2001). The majority of long-term care is provided by informal networks consisting of family, friends, and neighbors. Major caregivers are spouses and adult children, particularly daughters (Bedard, Koivurata, & Stuckey, 2004).

Heavy reliance on informal caregivers are due to: (1) the informal networks of rural elderly are stronger than those of their urban counterparts, and rural residents are less likely to need formal services, (2) rural elders rely on their informal networks by default because formal networks are not readily available, and (3) rural elders are more reluctant to accept help from a formal service provider (Stoller & Lee, 1994).

Caregivers in Rural Settings

Caregivers play a major role in the care of rural elders. They face more stress in rural settings than urban counterparts (Bedard et al., 2004). This can be attributed to the fact that rural elders have generally poorer health, fewer financial resources, and fewer formal resources (Coburn & Bolda, 2001).

Analysis—Health Care Solutions for Rural Elders

Because rural elders have special needs, they require unique health care models. The journey toward developing and implementing successful health care models begins with the right theoretical foundations. A good fit would be theories that deepen the understanding of rural culture as well as guide toward a feasible approach to long-term care. Understanding and knowing the concept of cultural competence and its vital components is essential (Administration on Aging [AOA], 2001). Finally, understanding the concepts of person, health, environment and nursing through a rural perspective is key (Bushy, 2000).

Applicable Theories

The following are some theoretical models that might offer foundations for developing health care solutions for rural elders:

- Transcultural frameworks, such as Madeleine Leininger's Sunrise Model, Theory of Cultural Care Diversity and Universality, which focuses on three nursing interventions: "cultural care and preservation and maintenance, cultural care accommodation and/or negotiation, and cultural care repatterning and/or restructuring" (Welch, 2002, p. 512).

- The Health Belief Model, which places emphasis on how one perceives severity of illness and can help increase understanding of health and nursing issues specific to rural settings (Bushy, 2000).
- Social Support Theories, which describe support systems. Rural dwellers thrive on constant interaction with others within the community and reciprocal acts of caring and support.
- Self-Transcendence. An ethnographic study by Magilvy and Davis (2000) describes the rural elders as transcending the chronic illness experience. Having chronic illness was viewed as a journey to finding meaning in life through acceptance, “coming to terms with the reality of the illness and its demands” (Magilvy & Davis, 2000, p. 389).
- Health as Expanding Consciousness (HEC). Margaret Newman’s Theory of HEC is consistent with the belief that a person can find meaning in illness (Newman, 1994).

Striving Toward Cultural Competence

“Culture has to do with who you are” (Agar, 1994, p.21). Culturally sensitive health care policies and health services are best suited to meet the needs of the aging community, in particular, those who live in rural areas (AOA, 2001). Cultural competence is defined as “a set of cultural behaviors and attitudes integrated into the practice methods of a system, agency, or its professionals that enables them to work effectively in cross cultural situations” (AOA, 2001, p. 9). It is the blending of a community’s cultural practices and beliefs into health services and policies (AOA, 2001).

Four Core Concepts of Nursing—Person, Health, Environment, and Nursing

Rural communities are characterized by diversity, a melting pot of different cultures (Bushy, 2000; Magilvy & Davis, 2000). Demographic profiles for rural areas show an increase in racial ethnic groups, such as Latino, Asian, American Indian, or African American (Kirshner et al., 2006). The Hispanic population increased by more than 60% in rural areas from 1990 to 2000 (Kirshner et al., 2006).

Rural dwellers tend to know one another in the community, which highlights the issues of trust and privacy. Caregivers are usually family members or people to whom the elders are close. There is a usual reluctance of rural elders to visit a health care provider (Bushy 2000, Magilvy & Davis, 2000).

Having a strong constitution or hardiness is a typical description of a rural dweller (Averill, 2002; Bushy, 2000; Magilvy & Davis, 2000; Rutherford & Roux, 2002). Hardiness is defined as a “capacity for enduring or sustaining hardship and privation and the capability of surviving under unfavorable conditions: courage, boldness and audacity” (Bushy, 2000, p. 41). Rural dwellers described their chronic illness experience as a learning process of coping and dealing with difficult life situations (Magilvy & Davis, 2002).

Rural communities are usually sparsely populated, yet, they occupy a large area of land. Large uninhabited spaces may exist between communities. This type of environment affects how a person may plan activities such as trips to pick up groceries and household supplies, doctor appointments, and visits to relatives (Bushy, 2000). Geographic landscape of rural areas greatly affects access to health care.

Work and health are viewed synonymously. The ability to work is viewed as being healthy (Bushy, 2000, p. 35). Support and strength comes from spirituality. A belief in God offers comfort, guidance, and pride. Avoidance of health care providers and greater reliance on self and informal sources of care are typical behavior patterns (Magilvy & Davis, 2000; Stoller & Lee, 1994).

Challenges faced by health care providers include issues of privacy, trust, and functioning in multiple roles. When rural health care providers work in a small community, they find themselves caring for individuals with whom they have personal as well as professional relationships. Nurses find themselves occupying several roles and require competency in a wide range of skill sets (Bushy, 2002).

Care Models

Older adults have expressed their desire to stay at home for as long as possible, however, there is a lack of formal home based services in rural areas. There is a clear need to explore other types of long term models of care.

Adult foster homes. Adult foster homes (AFH) have been utilized as a supplement to nursing homes (Kane, Kane, Illston, Nyman, & Finch, 1991). An AFH is a private residence and is located in a residentially zoned area. The number of residents is usually between 1 and 5. A live-in resident manager is usually required, who may also own the home. Settings are maintained to mimic a home-like atmosphere and enhance autonomy of the residents; therefore, regulations are kept to a minimum. This program has been a proven success among the elderly in Oregon. Many elderly found the AFH a desirable option for long-term care. Oregon is the only state where nursing home use has dropped (Kane et al., 1991).

AFHs offer several advantages. First, AFHs in rural settings offer an ideal alternative to elderly residents living in that area. They offer a sense of familiarity because there is a high likelihood that the rural elder may already know the resident manager or owner of the AFH. In addition, there is a possibility that its location may be within the same community that the rural elder has grown to know. Although it is not home, it may give a person a sense of being home. Finally, it is a less expensive option to nursing homes. One main drawback to this alternative model of care includes funding sources. How feasible would it be for prospective AFC owners to afford such an initiative when there is a high poverty level among rural areas.

Telehealth in rural communities. Telehealth technologies have offered an alternative to delivering nursing interventions to rural elders (Buckwalter, Davis,

Wakefield, Kienzle & Murray, 2002). These interventions include health education, medication management, and disease monitoring. Nurses were able to deliver 24 telehome visits per day (Rooney, Studenski, & Roman, 1997). Advantages to this type of care include bridging the geographical divide that rural communities are faced with. Through this technology, nurses and other health care providers are able to reach out to homebound elders. Disadvantages of this type of model include the complexity of using technical equipment. There is a need to set up video home equipment. Families may find this too complicated to handle and may add to already high stress levels. Source of the funding may be an issue for this model of care, which would likely come from federal and state grants.

Medicare Advantage Plans. Medicare Advantage Plans are health plans approved by Medicare but managed by private companies (U.S. Department of Health and Human Services, 2007). One advantage of these plans is the added benefits members receive once enrolled in the plans. These extra benefits may differ from one plan to another; however, the plan meets specific needs that regular Medicare would normally not cover. Members normally pay the usual premiums, as if paying for regular Medicare. One example of an added benefit would that a plan may offer coordination programs for people with long-term illnesses and disabilities and for aging adults. These plans are designed to foster independence and health by implementing nurse practitioners in the community and long-term care facilities (Evercare, 2007). A drawback for rural elders who need nursing home placement is that these plans have to be contracted with that particular nursing home before enrollment begins. Another disadvantage would be the unfamiliarity between the member and the nurse case manager or nurse practitioner rendering services. Given enough time, however, the relationship between nurse practitioner and member may continue to grow and develop.

Rural health centers. One particular program has been developed for rural areas in New Mexico. Rural health centers are not-for-profit clinics that offer a variety of services, such as dental, medical, child health services, behavioral health, and supportive living programs in rural frontier areas. For example, Presbyterian Medical Services (PMS) is a not-for-profit organization whose aim is to serve areas in New Mexico designated as health professional shortage areas (HPSAs; Health Resources and Services Administration [HRSA], 2007). HPSAs are defined as areas where there is a shortage of medical, dental, or behavioral providers (HRSA, 2007). Housing, sanitation, and roads are often substandard, and people living in these areas are below poverty level (PMS, 2007).

An advantage of these clinics is that they are usually subsidized through state and other funding sources (PMS, 2007). A clinic is primarily located in the rural area being served, and it should be in close proximity to its community members, which can facilitate access to these services. Costs incurred by patients seen at these clinics are subsidized and dependent on their household income. One particular disadvantage is that funding for these clinics is highly dependent on grants and state funds, which may be unexpectedly terminated. Another concern may be associated with privacy issues. For example, volunteering, which is a primary source of help in these clinics, may lead to privacy

issues among community members. Most volunteers may be patients themselves and know most patients seen at the clinic (PMS, 2007).

Summary and Implications

There are still many unresolved issues for aging rural residents. Three key issues are funding sources for long-term care, access to care, and, most importantly, individual and cultural preservation through the availability of personal choices for long-term care. Having the option to stay home for as long as possible is important for aging adults (AARP, 2001).

Funding Long-Term Care—Current Reimbursement Climate

In addition to its already existing limited infrastructure, rural settings are impacted by policy changes in Medicare and Medicaid. Funding cuts by as much as \$58 billion through The Balanced Budget Act of 1997 created lasting financial effects on rural hospitals and providers. It is important to note that the Balanced Budget Refinement Act of 1999 (PL 106-113) and the Medicare, Medicaid, and State Children's Health Insurance Program Benefits Improvement and Protection Act of 2000 (Public Law 106-554), which restored \$2 billion to Medicare programs, are only temporary fixes (NRHA, 2001). Continued pressure on Congress for additional funding for Medicare programs, specifically for rural areas, is much needed.

Access

Aging in a rural setting comes with many challenges, including geographic, financial, and educational barriers, all of which contribute to a lack of access to health care. In addition, there are too few rural health providers, and they are faced with issues in recruitment and retention, education, and adequate training. Health care providers function as generalists, and maintaining currency and competency in many skill sets is vital. Perhaps telehealth innovations may pave the way in education of rural providers (University of New Mexico, 2007).

Choices for Alternative Long-Term Care

Nursing homes are still predominantly used in rural settings (NRHA, 2007); therefore, once informal networks for care are exhausted or unavailable, rural elders are left without many choices. Most in-home and community-based services are primarily available in urban settings (Coburn & Bolda, 2001). Although office visits, hospital and nursing home stays are reimbursable services by either Medicaid or Medicare, services rendered at home, especially those that are nonmedical, are currently nonreimbursable. The NRHA states that the elimination of the waiver status of Medicaid home- and community-based programs might be beneficial to states. For example, in New Mexico, a Personal Care Option (PCO) was added to the state plan in 1999. This initiative would enable older rural adults to remain in their homes (Kane, Kane, Preister, Spencer, Lakin & Lum, 2005).

Creating Awareness

Aging- related issues, especially among rural communities, require some sense of urgency. In New Mexico, aging issues have been elevated to a cabinet level through the formation of the Aging and Long-Term Service Department. This department and two other cabinet-level departments work in collaboration on long-term care and associated issues (Kane et al., 2005).

Research

According to the NRHA (2001), most research on rural health issues is scarce and outdated. Several priorities have been set by the NRHA. More information regarding the impact of changing trends in demographic profiles on rural communities and current tracking of changes in the federal reimbursement policies are crucial. Rural elders living in nursing homes have a higher acuity level and the competency of nursing home staff who care for these patients must be ensured. Another issue of concern surrounds the plight of rural veterans; NRHA (2001) reports that two states have no long-term care facilities for its veterans.

Conclusion

Can we offer long-term care alternatives for rural elders? It is a simple question with a simple answer but a complex solution. Staying at home is possible as long as adequate funding and support services are available. Senator Frank Leavitt stated in the fiscal year 2007 budget report:

The third principle is actually providing services. Senator Max Baucus talked about the need we have to provide for those who are poor, who are sick, and who need to be uplifted. Many times we are building infrastructure to do that, but not actually getting to the point of delivering service. In times when we do not have the ability to do both, my preference is, let us help people and not just build infrastructure. It is nice and important to do both, but if you have to do one, let us focus on delivering services to people. (Committee on Finance: United States Senate, 2006, p. 11)

The fiscal year budget allotted a total of \$700 billion to Health and Human Services for Medicaid expenditures. Actions geared toward applying more pressure on legislative agencies and lobbying for funding initiatives for rural settings is necessary. Movement toward legislation that will designate specific funds for rural populations is needed. Long-term care solutions for rural elders rest on sound health care policy, responsible allocation of funds, creativity, and resourcefulness on the part of health care professionals and policy makers.

References

- Agar, M. (1994). *Language shock: Understanding the culture of conversation*. New York: William Morrow and Company.
- American Association of Retired Persons. (2000). *Fixing to stay: A national survey of housing and home modification issues*. Retrieved November 29, 2007, from <http://www.aarp.org/research/reference/publicopinions/aresearch-import-783.html>
- Administration on Aging. (2001). *Achieving cultural competence*. Retrieved November 29, 2007, from http://www.aoa.gov/prof/adddiv/cultural/adddiv_cult.asp
- Averill, J. (2002). A portrait: Magdalena's dream. *Public Health Nursing, 19*(3), 156-160.
- Bedard, M., Koivurata, A., & Stuckey, A. (2004). Health impact on caregivers of providing informal care to a cognitively impaired older adult: Rural versus urban settings. *Canadian Journal of Rural Medicine, 9*(1), 15-23.
- Buckwalter, K., Davis, L., Wakefield, B., Kienzle, M., & Murray, M. (2002). Telehealth for elders and their caregivers in rural communities. *Family Community Health, 25*(3), 31-40.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage.
- Coburn, A., & Bolda, E. (2001). Rural elders and long term care. *Western Journal of Medicine, 174*, 209-213.
- Committee on Finance: United States Senate. (2006). President's fiscal year 2007 budget: Medicare and Medicaid proposals. Retrieved November 29, 2007, from <http://finance.senate.gov/hearings/35145.pdf>
- Congdon, J., & Magilvy, J. (2001). Themes of rural health and aging from a program of research. *Geriatric Nursing, 22*(5), 234-238.
- Evercare. (2007). About Evercare. Retrieved November 29, 2007, from <http://www.evercarehealthplans.com/>
- Global Action on Aging. (2007). Global action on aging. Retrieved November 29, 2007, from <http://www.globalaging.org/ruralaging/index.htm>
- Health Resources and Service Administration. (2007). Health professional shortage areas. Retrieved November 29, 2007, from <http://hpsafind.hrsa.gov/>
- Kane, R., Kane, R., Illston, L., Nyman, J., & Finch, M. (1991). Adult foster care for the elderly in Oregon: A mainstream alternative to nursing homes. *American Journal of Public Health, 81*(9), 1113-1120.
- Kane, R., Kane, R., Preister, R., Spencer, D., Lakin, K., & Lum, T. (2005). Rebalancing long-term care systems in New Mexico: Experience up to July 31, 2005. Retrieved November 29, 2007, from http://www.hpm.umn.edu/lrcresourcecenter/rebalancing_attachments/Washington%20abbreviated%205.24.2006%20FINAL_06.13.06.pdf
- Kirschner, A., Berry, E., & Glasgow, N. (2006). The changing demographic profile of rural America. Retrieved November 26, 2007, from http://www.ncrcrd.iastate.edu/resources/Kirschner_Berry_GlasgowV3.pdf
- Magilvy, J., & Davis, R. (2000). Quiet pride: The experience of chronic illness by rural older adults. *Journal of Nursing Scholarship, 32*(4), 385-390.

- National Rural Health Association. (2001) Long term care in America. Retrieved November 26, 2007, from <http://www.nrharural.org/advocacy/sub/issuepapers/ipaper21.html>
- Newman, M. (1994). *Health as expanding consciousness*. New York: National League for Nursing Press.
- Presbyterian Medical Services. (2007). Who we are. Retrieved November 29, 2007, from <http://www.pms-inc.org/whoweare.html>
- Rhoades, J., & Sommers. (2003). Trends in nursing home expenses, 1986, 1999. *Health Care Financing Review* 25(1), 99-114.
- Rooney, E., Studenski, S., & Roman, L. (1997). A model for nurse case-managed home care using televideo. *Journal of the American Geriatrics Society*, 45, 1523-1528.
- Rutherford, M., & Roux, G. (2002). Health beliefs and practices in rural El Salvador. *Journal of Cultural Diversity*, 9(1), 3-11.
- Stoller, E., & Lee, G. (1994) Informal care of rural elders. In R. Coward, C. Bull, G. Kukulka, & J. Galliher (Eds.), *Health services for rural elders* (pp. 33-64). New York: Springer.
- U.S. Department of Health and Human Services. Medicare. Retrieved November 29, 2007, from <http://www.medicare.gov/MPPF/Include/DataSection/Questions/Welcome.asp?version=default&browser=IE%7C7%7CWinXP&language=English&year=2008&PDYear=2008&MAPDYear=2008&defaultstatus=1&pagelist=MPPFHome&MPDPF%5Fzip=&type=ZIPCOUNTY&ExternalSourceID=&MPPF%5FPDP%5FIntegrate=N>
- University of New Mexico Health Sciences Center. (2007). Project echo. Retrieved November 29, 2007, from <http://echo.unm.edu/staff.shtml>
- Welch, A. (2002). Culture care: Diversity and universality theory. In A. Tomey & M. Alligood (Eds.), *Nursing theorists and their work* (pp. 501-526). St. Louis, MO: Mosby.