

FRONTIER RESIDENTS' PERCEPTIONS OF HEALTH CARE ACCESS

by

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ABSTRACT

It can be difficult to access health care due to cost, lack of insurance, and lack of available resources for Americans today. Frontier persons have even more obstacles in accessing health care due to geography, time and distance to facilities, lack of medical personal, and culture. This study's purpose was to better understand frontier residents' perceptions of access to health care. Specific aims were to (a) explore frontier residents' health care access resources, (b) investigate frontier residents' utilization of health care services, (c) search for reasons frontier residents seek health care (d) and explore the residents' overall satisfaction regarding their health care access options. A qualitative approach that included open-ended questions was used to interview a convenience sample of 11 frontier residents in a Southwestern Montana town. Participants were recruited using a snowball approach. Common themes were extracted using a "low inference" analysis style. Aday and Andersen's framework and their study of access to medical care (1975) guided the study.

Results revealed most residents felt they had access to health care and all had seen a provider in the last 2 years. Residents used "local" services, the closest being 70 miles away, for minor ailments and injuries or when home remedies failed. A "by-pass" mentality of "local" services was seen for more serious events. Children were treated differently and health care was sought sooner if they became ill. Reasons for seeking care included preventative services, acute injuries, and infectious processes. Cost, weather, road conditions, gas prices, travel time, and taking time off work were mentioned as barriers in health care utilization. Insurance deductibles and costs of health services limited the type of health care residents sought. Satisfactions with health care providers were high as well as sliding scale fees of the local health centers. Cost and distance were unsatisfactory. Implications for practice include educating residents about benefits and abilities of their local resources, the need to seek care for preventative services, health promotion topics, and disease prevention. In addition, health care authorities should focus on alternative ways to bring health care to the frontier residents including telemedicine and lowering costs.

CHAPTER ONE

INTRODUCTION

Background and Significance of Study

According to the National Coalition of Healthcare, the United States (U. S.) spent \$2 trillion dollars or \$6,700 per person in 2005 on healthcare (2007). In 2004 Montana alone spent \$4.6 billion on healthcare (University of Montana Bureau of Business and Economic Research, 2005). Despite this exorbitant financial burden, many Americans still have limited access to health care. The debate over the importance of health care access is still being argued at the community, state, and federal levels. However, no one can deny that having access to health care is an important part in achieving the highest level of one's health. According to Shi and Starfield (2001), evidence linking access to a regular source of health care and improvement in health are emerging and "access to primary care alone can mitigate health disparities" (as cited in Politzer, Yoon, Shi, Hughes, Regan, & Gaston, 2001, p. 235).

Access to health care is dependent on many factors including whether one has health insurance, affordability of the care, location of the care, the time it takes to access the care, and the acceptability of the care provided (Aday & Andersen, 1975). In order to determine perceptions of access to health care, one must first look at variables that affect access.

The state of Montana has many factors that influence accessing health care. One of those factors is the degree of the state's "ruralness". Montana is the fourth largest state

in land mass in the U.S. but has fewer people than 44 states. The state has a population of 935,000 according to the 2005 U.S. Census Bureau (Montana, 2007). The U.S. Census listed 275 town/cities in Montana, 75% of which have a population of 1500 people or less (U. S. Census Bureau, 2004). This combination of land mass and small population results in many areas in Montana that fall under the U.S. Census Bureau's definition of rural and frontier. Rural areas are defined as places with less than 2,500 people and "not in places" (U. S. Census Bureau, 1995). Frontier areas are counties with population densities of less than 6 residents per square mile and are the most sparsely populated rural areas (Lee, 1991).

Two characteristics of Montana that contribute to problems with transportation and accessing health care are geography and weather. The western part of the state is enveloped by the rugged Rocky Mountains and is mostly uninhabitable. The majority of Western Montana's population is congregated in micropolitan and metropolitan areas along highways or major rivers, leaving vast areas that are inhabited by few or no people. Micropolitan statistical areas "must have at least one urban cluster of at least 10,000 but less than 50,000 population" and metropolitan statistical areas "must have at least one urbanized area of 50,000 or more inhabitants" (U. S. Census Bureau, 2005, ¶4). The central and eastern parts are sparsely inhabited plains and farmland. Weather, particularly in the winter, is also a factor that affects accessing health care. Winter in Montana is considerably longer than in other parts of the U. S., typically lasting from November through March. The threat of snow during these months can make transportation, both

land and air, difficult if not impossible. Cold temperatures can also affect road conditions and vehicle performance, impairing one's ability to travel.

Distance and travel time to health care facilities play unique roles in allowing or inhibiting access to health care (Long & Weinert, 1989). Access to some health care facilities for frontier residents is a minimum 60 mile drive away. Other frontier residents may only be 30 miles away from their health care access but, due to weather or geography, must drive an hour or more to obtain care. Some areas in the U. S. require rural residents to drive over 6 hours to obtain specialized healthcare (Huttlinger, Ayers, & Lawson, 2004). Long and Weinert (1989) found that rural informants traveled an average of 23 miles to access emergency services and over 50 miles for routine services. Shreffler, Capalbo, Flaherty, and Heggem found that "driving time of 30-45 minutes was considered the maximum acceptable limit" for reasonable access to care (1999, p. 184). Montana has many regions that are sparsely populated and frontier residents must be willing to drive considerable distances in order to receive any type of health care.

Financing is also a considerable factor in the ability to access healthcare. In Montana, 19% of the population is uninsured and presumably must pay for health care out of pocket or go without (Montana Department of Public Health and Human Services, 2005). One participant of Bales, Winters, and Lee's (2006) study who had insurance stated, "[health insurance] is very expensive and we pay it all ourselves . . . [it is] a real burden . . . a lot of people up here do not have health insurance, at all" (p. 62). In addition, rural work often consists of low paying jobs with lack of insurance coverage

which limits the ability of rural persons to pay for the care they do receive (Stevens, 1992).

The number of available health care facilities rural residents can access is also a concern. According to the Bureau of Primary Health Care (BPHC), 43 million people in the U. S. live in underserved areas (as cited in Politzer et al, 2001). Options for health care access may involve only one clinic or a critical access hospital. Some rural residents may not have any access for many miles. Also, many small rural communities across the nation have faced closures of their local hospital including emergency and acute care options (Shreffler et al, 1999; Shreffler, 1996). Retention and recruitment of health care professionals is also a practical concern in frontier areas. Knapp, Paavola, Maine, Sorofman, and Politzer (as cited in Slifkin, 2002) stated that a primary care provider increase of 19% would be needed in rural areas for them to be on par with the national average for treating chronic health conditions. This limit of facilities and providers restricts the number of accessible options rural dwellers possess.

Culture and personal belief systems are also prominent factors that influence access to health care among rural residents. Investigators have found that rural persons define health as the ability to do work and they are generally self-reliant, accepting little help from state or federal agencies (Lee & McDonagh, 2006a). Therefore, care is accessed only to return back to work, not for illness prevention or health maintenance. This population also tends to seek healthcare through an informal system. Also according to Lee and McDonagh, advice about health ailments is sought from other members in the community such as neighbors and friends (2006a). Illnesses are routinely treated at home

first through medical book consultation. If an illness or injury was deemed serious or involved a child, formal health care was only then accessed.

In recent years, an increase in the number of “baby boomers” leaving urban areas and moving to more rural and frontier areas has been seen. According to the U.S. Census Bureau, in the 1990-2000 decade the western states had the highest percentage increase in its older population (2001). This was due both to retiree influx and to the out migration of the younger population. Approximately 27% of the U.S. population lives in rural areas with those residents being older and poorer than their urban counterparts, with higher unemployment rates, less education, and less health insurance (Hornberger & Cobb, 1998, p. 364; Shreffler, 1996, p. 48). Along with the increase in numbers and proportion of elder rural dwellers comes an increase in need for health care access due to the increase in number of chronic illnesses and need for more routine health care visits.

Many factors can affect frontier residents’ access to health care. Culture, cost, location of services, and availability of services are among a few variables that have the potential to affect access to health care. However, much is still unknown about frontier residents’ perception of access to health care. What causes these residents to seek health care, who decides to seek services, when do they seek health care, where can they go to get health care, why do/don’t they seek health care, and how they obtain health care are all questions that still need further research. To gain more insight into the subject, studies focusing on frontier residents’ views regarding health care and their access to health care need to be conducted.

Purpose

The purpose of this study was to better understand frontier residents' perceptions of access to health care. The specific aims of the study were to (a) explore frontier residents health care access resources, (b) investigate frontier residents' utilization of health care services, (c) search for reasons frontier residents seek health care (d) and explore the residents' overall satisfaction regarding their health care access options. The purpose and aims were addressed with a descriptive cross sectional design using qualitative interviews of a convenience sample of residents in one frontier town in Southwestern Montana.

Problem Statement

In some health care settings it can be difficult to access health care due to cost, lack of insurance, and lack of available resources. Rural persons have even more obstacles in accessing health care due to geography, time and distance to facilities, lack of medical personnel, and culture. This may lead to rural persons using more home therapies for care needs, failing to use preventative services, and being under-treated for chronic medical conditions (Stevens, 1992). By understanding rural perceptions of access to health care, the nursing community could improve its ability to care for this population and improve access for these residents.

Qualitative research on this topic could generate new concepts that can be analyzed and incorporated into everyday nursing practice. Further research about frontier residents' perception of access to health care could change the way we educate new

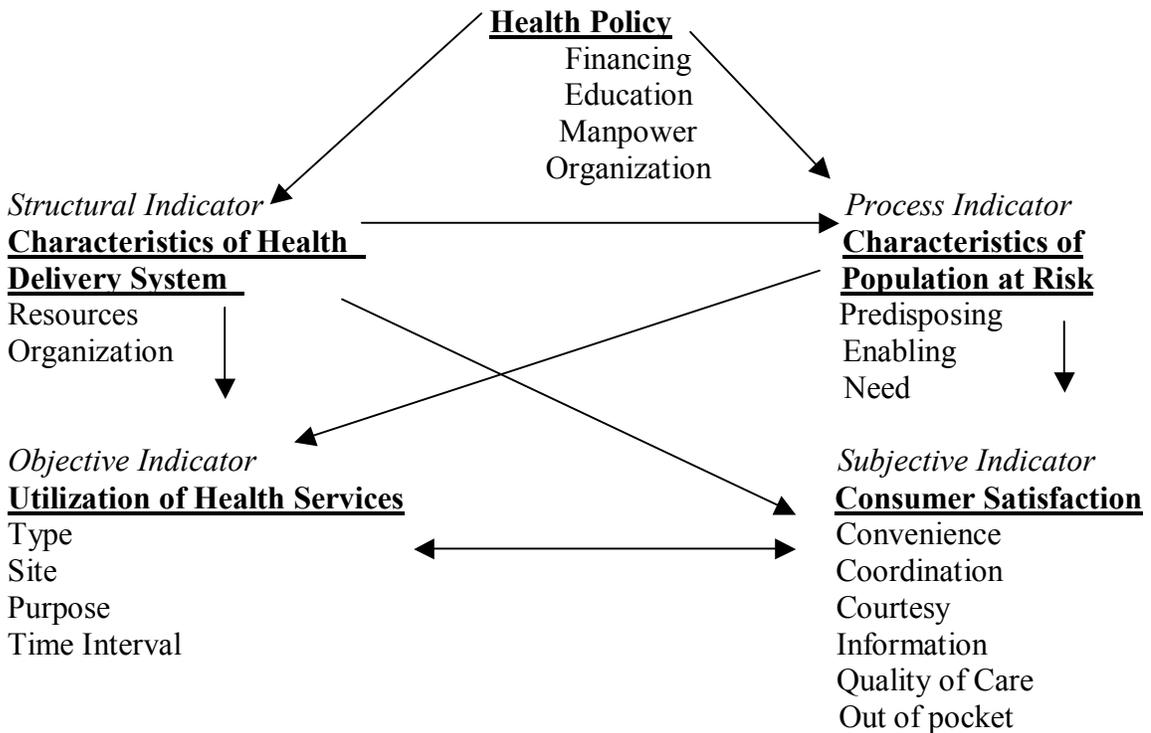
nurses as well as the way we educate frontier residents. If we understand their health care perceptions the health care profession's paradigm could change from one of treatment to one of prevention. Also, from a health care sense, these qualitatively derived concepts can affect community development and aid in determining goals and strategies to improve the sustainability of the frontier community. For example, if the community feels they need support for elders and children, health care providers can alter their delivery strategies to focus on this specific group needs. New concepts obtained can also alter policies affecting needed health care access and improve networking of already available services to ensure adequate health coverage for all.

Conceptual and Theoretical Framework

The framework that guided this study was the work of Aday and Andersen and their study of access to medical care (figure 1). Their model revolves around five concepts of health care access; health policy, characteristics of the health delivery system, characteristics of the population-at-risk, utilization of health services, and consumer satisfaction (Aday & Andersen, 1975). The framework includes process indicators, outcome indicators, and health system factors (Gulzar, 1999). Potential access to care involves structural and process indicators with structural indicators including the health delivery system and process indicators including characteristics of the population-at-risk (Racher & Vollman, 2002). Objective indicators of realized access measure utilization of services while subjective indicators measure consumer satisfaction and evaluation of care received (Racher & Vollman, 2002). Primary determinants of access include population

characteristics, the external environment, and the health care system (Racher & Vollman, 2002).

Figure 1. Aday, L.A., & Andersen, R. (1975). A framework for the study of access to medical care [Electronic version]. *Development of Indices of Access to Medical Care*, 9(3), 208-220



Health policies are standards that are enacted to improve access and are the starting point for the framework (Gulzar, 1999). According to Aday and Andersen, this concept is political in nature and generally dictated by local, state, and federal health planners (1975). The goal of health care policy is to improve access for all the members of the population that need the services.

Aday and Andersen’s framework (1975) suggested that health care delivery systems are composed of two main elements: resources and organization. Resources

include health care personnel, facilities, equipment, distribution of resources, and volume of resources. Ambulance transport services would also be considered here. Organization refers to entry and structure into the health care system with travel time, wait time, and the things that happen to the patient once he/she is in the system. In this portion of the framework, the system is the unit of analysis.

Characteristics of the population-at-risk include elements related to the individual and are subdivided by Aday and Andersen into the categories of predisposing, enabling, and need (1975). Health care systems and the external environment affect population characteristics which inevitably affect utilization of resources and health practices (Gulzar, 1999). The predisposing variables, which predispose one to use health care systems or not, include characteristics such as sex, race, age, feelings regarding what health and illness are, location of the residents, perceived need of care, and religion. The enabling category reveals resources that enable individuals to use services available. This consists of resources for the individual and family as well as attributes of the community in which the individual lives. Examples include income, insurance, and character of the region. Finally, need encompasses both perceived need of the individual and evaluated need of the delivery system. Need ultimately refers to the level of illness of the individual and, according to Aday and Andersen, is best evaluated via household surveys. In the category of characteristics of the population, the individual is the unit of analysis.

Utilization of health care services refers to the actual entry, or non-entry, into a particular type of health service including physician services, hospital services, pharmacological services, etc. (Aday & Andersen, 1975). A second aspect of utilization

is the type of services that was obtained whether it be preventative, illness related, or custodial (Aday & Andersen, 1975). Utilization of services may be attempted but actually never gained due to inhibitory factors. Therefore, to be complete in exploring utilization of services one must look at individuals who received health care as well as those who have attempted to access health care (Aday & Andersen, 1975).

Consumer satisfaction refers to the feelings of the individuals who have accessed or attempted to access the health care system (Aday & Andersen, 1975). Many variables can affect this type of satisfaction. Cost of care, attitudes of providers, smoothness of entry into the system and coordination of its services, and education regarding illness are all considered parts of this realm (Aday & Andersen, 1975).

These five components are interrelated with one having the ability to affect another. In this study, the unit of analysis was the residents' perceptions of access to care. This includes their opinions regarding the characteristics of their resources, their perceived need for care, reasons for utilizing care, and how satisfied the individual was regarding their health care access.

Definitions

In order to be consistent in both the research and the literature review, definitions of certain terms are provided in this section.

1. Frontier: less than six people per square mile.
2. Rural: places with less than 2,500 people and "not in places" (U. S. Census Bureau, 1995)

3. Access: the right to enter or an approach to use a given service.
4. Health care: includes clinics, hospitals, emergency medical system (EMS) services, physician/nurse practitioner/physician assistant offices, and other generalized services where residents can obtain any form of health care.
5. Perception: defined by Webster's as "understanding, knowledge, insight, or intuition" (1999, p. 1068).

Assumptions

A few assumptions were made before attempting the research. First, older individuals or long-time residents will more likely have a better understanding of available resources due to their longer exposure to those resources. Older persons have more health ailments than their younger counterparts. Therefore, this population may have sought health care more often than younger individuals. Second, persons with chronic diseases that require frequent monitoring from their health care provider may have a better knowledge, and differing perception, of health care access. Individuals with chronic ailments typically see health care personnel on a more routine basis as well as occasionally requiring more specialized care. Finally, a qualitative approach was assumed to be the best research method since it allows the participants to express their experiences in their own words.

CHAPTER TWO

REVIEW OF THE LITERATURE

In this chapter, a summary of the literature on rural residents' access to and utilization of health care is presented. In addition, literature pertaining to health care seeking behaviors of rural residents and health problems of rural residents is summarized. Finally, literature on rural residents' perceptions of access to healthcare is reviewed.

Rural Residents Access to Health Care, Barriers to Health Care,
and Utilization of Health Care Resources

Access to health care is the ability of an individual or community to obtain some form of health care assistance. According to Hornberger and Cobb, "access includes equal cost experiences for all groups, service availability based upon needs and geographic distribution, equality and quality of health care, and positive perception of health care services by all clients" (1998, p. 367). Stevens (1992) believed health care can only be fully accessible if it is affordable, close by, and of sufficient quality. Donabedian stated that there are two aspects of health care accessibility, "socio-organizational and geographical" (as cited in Aday & Andersen, 1975, p. 111). The socio-organizational aspect refers to attributes of the person/place giving the care: i.e. the gender of the provider, the fee scale for service, and the provider's specialization. These factors may ease one's attempt to access care or delay it. The geographical aspect refers to actual "physical distance" or the distance one must travel in order to access the care (as cited in Aday & Andersen, 1975, p. 208). Shreffler considered access as having two dimensions,

“potential access and actual access” (2006, p. 167). Potential access includes “properties of the populations and health care system that affect entrance into the health care system” while actual access “includes utilization and willingness to use the health care system and satisfaction with the care received” (Shreffler, 2006, p. 167). Other researchers have stated the consumers must be actually willing to access the care they have in order for health care to be considered accessible (Aday & Andersen, 1975; Donabedian, 1973). Aday and Andersen also considered access in terms of those who needed care actually getting into the system (Racher & Vollman, 2002). Donabedian summed it up best: “The proof of access is use of service, not simply the presence of a facility” (as cited in Ricketts & Goldsmith, 2005).

Huttlinger et al found that the norm in rural communities was not receiving preventive care due to lack of sufficient monies (2004). According to respondents of the Medical Expenditure survey, 61% of rural residents felt an inability to afford health care and cost was a major barrier in receiving care among rural Southern minorities and Minnesota farm dwellers (Slifkin, 2002). Access to health care, however, remains a priority among rural dwellers. The Southwest Rural Health Research Center conducted a survey in 2001 to identify the top five priority areas of the 28 major focus areas of *Healthy People 2010*. The surveys were sent to local and state rural health leaders with the results being divided into regions. Among the western responders, access to quality health services was the number one priority (Gamm & Hutchison, 2003). Seventy three percent of all states and local respondents ranked access to quality health services as the number one priority (Gamm & Hutchison, 2003).

In a study by Bales, Winters, and Lee (2006) of Montana City residents, weather was an occasional factor in determining which town they accessed for health care. The study's purpose was to explore health needs and perceptions of rural residents in Montana City, Montana. Data were collected qualitatively using semi-structured interviews and involved six residents, one man and five women. One resident stated "in a few months . . . I would be heading to the clinic in Maryville . . . because the road to Conway will be closing" (p. 59). Another resident who was 8 months pregnant at the time of the study stated "I chose the Littlewood clinic [to give birth] but Conway would actually be a little closer but they have sometimes a bit more weather concerns" (p. 59). Another resident stated "I would never move just for medical care" (p. 61). This study shows that, at times, weather may actually cause an increase in driving distance in order to access care.

Johnson (2001) conducted a study regarding perceived barriers to health care of women in South Carolina. Focus groups of 4 to 12 women were used with 17 participants being urban dwellers and 14 being rural dwellers. Lack of health insurance was seen as the number one barrier in obtaining appropriate and timely health care. Other access barriers included provider gender, wait times, scheduling appointment difficulties, clinic hours, and disrespect from the staff. For low-income women, the health care system all together was seen as a barrier due to inflexible clinic hours not accommodating working mothers or children in school. Finally, feelings of being valued were deemed important with low-income minority women more likely to perceive discrimination than the other women.

Nemmet and Bailey's (2000) study was completed to determine utilization of health care services in rural elderly "activity areas" and whether distance to provider was a marker for utilization. The study was conducted using a 39 question mail-in survey involving 390 elderly households in rural Vermont. The "activity areas" referred to the spatial area in which the residents lived and used to maintain daily living (e.g. grocery store, house, and other family households). It was found that 92% of rural elderly residents had seen a provider at least once during the preceding 12 months. Also, having a regular provider, having a chronic illness, and driving less than 10 miles to seek care were all positive predictors of utilizing the available health care access. Having the provider located in the "activity space" of the resident was also positively correlated with utilization while distance alone was an insufficient marker.

Rural Hospitals and Rural Health Care

Rural hospitals are generally considered the source of health care among rural dwellers as well as providing additional services. Rural hospitals are generally small with "one-third of rural hospitals nationwide consisting of 50 beds or less" (Shreffler, 1996, p. 50). Many rural hospitals have long-term care facilities attached and provide opportunities for primary care, mental health, dentistry, and other disciplines to use the facility (Shreffler, 1996). According to the Rural Assistance Center, 54 of Montana's 61 hospitals are in rural areas (2007). Of those 54, 41 are currently identified as Critical Access Hospitals (CAHs) (2007).

Many small rural communities across the nation have faced closure of their local hospitals which can have devastating effects, including loss of emergency and acute care options (Shreffler, 1996; Shreffler et al, 1999). According to Heady (2002), many rural hospitals have closed or consolidated due to funding cuts of the federal government. DeFriese, Wilson, Ricketts, and Whitener (1992) reported that during the years of 1980-1987, 519 U.S. hospitals closed with 163 (45%) being rural. In addition, the low population numbers in rural areas results, and higher percentages of the rural uninsured, results in decreased hospital income (Heady, 2002). This is compounded by the fact that rural America is seeing an exodus of its younger population (Defriese et al, 1992). This population is the supplier of future rural generations and with their exodus not only is the population immediately affected but the future rural population is affected as well.

According to the Prospective Payment Assessment Commission (1988), 25% of all rural hospitals had negative income margins of 9% or more (as cited in DeFriese et al, 1992). Physician numbers and specialty services are also much lower in rural areas compared to urban areas. According to Rabinowitz and Paynter (2002), “only 9 % of physicians practice in rural areas and only 3% of recent medical school graduates plan to do so” (p. 113). DeFriese et al comparison of rural and urban physician numbers revealed that rural areas are much less served with only 53 physicians per 100,000 people compared to 160 in urban environments (1992). This creates a situation where rural health care settings are staffed mainly by non-specialist and family practitioners who typically shoulder the load of other specialties including obstetrics (OB) and pediatrics.

Federal funding has attempted to create incentives for providers to practice in rural areas. The 1976 Health Professions Education Assistance Act and the subsequent Public Health Service Act has attempted to provide monetary support to nurses, physicians, dentists, midwives, and others who decide to practice rural settings through scholarships, loans, grants, and additional training (Mueller, 2001). Rural health clinics (RHCs) have also been funded by federal dollars for which RHCs are paid based on costs they incur, allowing them to recoup Medicare dollars (Mueller, 2001). These RHCs must have advanced practice nurse practitioners (APRNs), physician assistants (PAs), or nurse midwives on staff. Under the Balanced Budget Act of 1997 the CAH program was initiated. This designation allows small rural hospitals to convert to a CAH facility which in turn allows for cost-based Medicare payments (Liu, Bellamy, & McCormick, 2007).

According to the U.S. Department of Health and Human Services, the State Rural Hospital Flexibility Grant Program was a major contributor in strengthening rural health by encouraging and assisting rural hospitals to apply for a CAH designation, assisting rural hospital in forming a network collaboration of health care, and improving emergency services (2007). This program helped rural hospitals support a health network with other, more metropolitan hospitals for referral and patient transfers (Mueller, 2001). These CAHs are reimbursed by Medicare on a cost-based fee basis.

One of Shreffler's (2006) studies examined rural residents' perspectives on health care access to identify predictors of use and willingness to use the local health care and satisfaction with the care. A random sample of 100 households in six Montana communities in which CAHs were located were invited to participate in the study. A

63.5% (n=381) response was obtained on the survey. Results revealed relevant data involving rural populations and access. She found that “few respondents reported use of the local CAH (9.7%) in 2 years while many residents (68%) reported use of their local provider” (2006, p. 170). In the same study, only 48% of the respondents stated they would be willing to use the CAH and local provider for future health concerns (Shreffler, 2006). The informants felt the CAH program did contribute to improving access to local health care even if they had not used them recently (Shreffler, 2006). Therefore, even though CAHs and medical assistance facilities (MAFs) were available but seldom used, most respondents felt they were still needed.

Liu et al (2007) conducted a study in 2004 to examine CAH use and patient bypass behavior. The study involved 25 CAHs. Participants in the study were 18 years or older, lived within a 15-20 mile radius of the CAH, and had at least one hospital overnight stay in the last year or had an outpatient doctor visit in the last 6 months. Of the 647 respondents, 60% bypassed their local CAH with 27% choosing to be admitted to another facility. In addition, over half of the respondents felt lack of medical specialists and limited scope of services provided were reasons why patients would bypass their local CAH (Liu et al, 2007).

APRNs could assist in filling the void in rural areas. According to Fitzgerald, Jones, Lazar, McHugh, and Wang (1995) APRNs perform up to 80% of the tasks of a physician (as cited in Baldwin, Sisk, Watts, McCubbin, Brockschmidt, & Marion, 2001). Use of APRN services also decreases the number of emergency visits, creates shorter hospital stays, and decreases medication costs (Leclaire, 2005). One study by Knudtson

(2000) examined satisfaction with APRNs in rural areas of Iowa and Minnesota. The study involved 93 subjects who were questioned regarding their satisfaction with the care they received from an APRN. Total satisfaction scores averaged 56.05 out of 60 with 60 being the highest in satisfaction (Knudtson, 2000). “Global satisfaction scores were also very high” and “subjects were most satisfied with how they were treated by the N. P. [advanced practice nurse practitioner] as well as the interest and respect shown by the N. P.” (Knudtson, 2000, p. 409).

Baldwin et al (2001) conducted a study to determine the acceptance of APRNs and PAs in rural counties. The investigators asked open ended questions of participants in five focus groups in a rural county in one Midwestern state that was considered a health professional shortage area. Results revealed that participants would be accepting of APRNs if they understood their scope of practice and if they were outgoing and friendly. Residents also felt APRN services should cost less than that of physicians, APRNs should remain integrated with the residents’ personal physician, and APRNs should be able to treat minor emergencies and assist in the EMS triage system (Baldwin et al, 2001).

Rural Populations, Health Seeking Behaviors of Rural Residents, and Health Disparities of Rural Dwellers

Approximately 27% of the U.S. population lives in rural areas with those residents being older and poorer than their urban counterparts, with higher unemployment rates, less education, and less health insurance (Hornberger & Cobb, 1998; Shreffler, 1996). Rural work typically consists of low paying jobs without insurance coverage which limits the ability of rural persons to pay for the care they do receive (Stevens,

1992). According to the United States Department of Agriculture (USDA), in 2003 approximately 14.2% of non-metro dwellers lived in poverty (2004). In 2001, the rural elderly (persons older than 60 years of age) represented greater than 19.7 % of the rural population (Rogers, 2002). According to the U. S. Census Bureau, 22% of the Montana population is 55 years of age or older (Geographic comparison table, Montana—County, 2000). A higher portion of rural residents are becoming elderly due to the aging of the population in general as well as the migration of younger residents to more urban areas (Shreffler, 1996). These elderly rural residents typically have a greater need for health care access than their younger counterparts due to chronic disease management. Also, the highest death rates among children and young adults are seen in the most rural counties of America with unintentional injuries and motor vehicle crashes being disproportionately more common as well (Blumenthal, 2002).

Some investigators have found that rural populations have unique health seeking behaviors. Health seeking behavior is defined as “conscious behaviors designed to promote healthy relationships among physical, mental, social, and spiritual aspects of one’s life so that life balance is maintained” (Winters, Thomlinson, O’Lynn, Lee, McDonagh, Edge, & Reimer, 2006, p. 36). The S-A-T-L, or symptom-action-timeline, approach unconsciously used by some rural residents determines accessing healthcare based on the “seriousness” and the type of symptom (Lee & McDonagh, 2006b). The symptom is considered the onset of injury or the “sign” of a perceived problem. The action is the process beginning with self-care and, if unsuccessful, secondary sources such as neighbors or books are referenced. Professional health care providers are sought

if the symptoms intensify or when “nothing else helped” (Buehler, Malone, & Majerus-Wegerhoff, 2006, p. 134). This process helps rural dwellers determine the perceived degree of sickness/illness/injury they are experiencing which then determines the level of care needed to be sought. The care sought can be in the form of neighbor insight, textbook reference, or health care personnel (Lee & McDonagh, 2006b). For example, if the patient is having cold symptoms, the illness may be seen as minor and rural people may try teas or over-the-counter medicines first. If the illness is intensified by fever, weakness, lack of cure by home remedies, or if children are involved then neighbor or professional care is sought.

This “self-reliance” characteristic of rural dwellers is evident in much of the literature. One study by Lee and Winters (2004) examined rural residents’ response to illness/injury and their perceptions of health (Winters et al, 2006). This study involved asking open ended questions of 38 rural residents. The investigators found that participants routinely engaged in self-care practices and, if needed, sought care from their family members and friends before seeking professional care (as cited in Winters et al, 2006). In the Bales et al (2006) study one participant of the study revealed “those of us who have been here for years, we just try to take care of ourselves without having to get any medical attention . . . we realize we are taking risks” (p. 61).

According to Long and Weinert (1989), two sets of beliefs are characteristic of rural dwellers; work beliefs and health beliefs. “Health is assessed by rural people in relation to work role and activities, and health needs are usually secondary to work needs” (Long & Weinert, 1989, p. 119). Completing work is generally seen as of greater

importance than having adequate health and health seeking behaviors usually relate to one's ability to return back to work.

The perception of health care access in rural communities is based upon many factors. Perception of health care access includes services that “are local, affordable, accessible, good, preventive, holistic, and comprehensive” (Hornberger & Cobb, 1998, p. 366). Grafton, Troughton, and Rourke (2004) stated that “practitioners and local hospitals are perceived by rural residents as the most important elements of their rural health system” (p. 157).

Rural persons believe their community should be able to care for its own people. In the Bales et al study of Montana City, Montana residents' perception of health care, self-reliance, hardiness, consumer awareness, informed risk, community support, and inadequate insurance were factors affecting access to healthcare (2006). Two informants in the study agreed that long-term residents of the town usually self-treated their illness before thinking about accessing formal health care resources. This idea of self-reliance was evident in long-term residents of the town compared to the new members. “We retired here. . . our experience is to take advantage of good medical care where we were and so we sort of expect to do the same thing here. . . we would be much more apt to take advantage of it [medical care] than people who lived here for 50 years” (Bales et al, 2006, p. 57). Another resident had to take her husband out of the hospital and home before he was completely well because she couldn't come up with \$118 a day, the necessary funds to pay for the hospital stay (Bales et al, 2006).

Brown, Gubrium, and Ogbonna-Hicks (2004) conducted random phone interviews with 184 residents of rural Florida to examine rural perceptions of health, health values, and health behaviors. Their study confirmed that rural populations relied less on physician and institutions for maintaining health. Participants of the study felt they were healthy if they had the ability to be active and were more compelled to provide self-care than to receive it from a health care provider (Brown et al, 2004). Health was defined by the residents as having the physical ability to do daily activities (Brown et al, 2004).

Perceived need also affects the health seeking behavior of rural residents. “Perceived need for the service, if the person has the resources to obtain the service, and if the service is within a reasonable distance” are components that determine if rural residents will seek out health care resources (Slifkin, 2002, p. 234). Health care services may be available and within a reasonable distance but are not accessed by the rural public. Some rural residents perceive the services available as not needed due to their culture of self-reliance (Slifkin, 2002). This idea is also seen in research by Strickland and Strickland (1996) where rural residents did not seek preventative services due to lack of perceived need (as cited in Mayer, Slifkin, & Skinner, 2005). For example, if preventative services are deemed unimportant by rural dwellers, no matter if they are available or not, underutilization will be seen.

A 2000-2002 study conducted by the National Survey of Children with Special Health Care Needs (CSHCN) examined perceived need for preventative services and specialty services for children with special health care needs (Mayer et al, 2005). Overall,

parents from all 50 states were interviewed and over 38,000 CSHCN interviews were completed. According to the authors, perceived need for services was determined by the question “during the past twelve months, was there any time when {child} needed routine preventative care” (Mayer et al, 2005, p. 620). Parents who responded affirmatively to this question were considered to have a perceived need for routine preventative care (Mayer et al, 2005). Only two-thirds of parents of CSHCN rural dwellers perceived a need for routine preventative services compared to three-fourths of their urban counterparts (Mayer et al, 2005). Also, parents of poor children and parents of uninsured children were less likely to report a perceived need for preventative and specialty care services (Mayer et al, 2005).

According to Shreffler (2006), the acceptability of local health care was a strong indicator of positive or negative perceptions of access to care. In her study, the higher the acceptability scale score the more likely an individual used or were willing to use their local provider or CAH (Shreffler, 2006). She concluded that “attending to community residents’ perceptions of competence, quality, the art of care, and appearance of facilities as well as developing strategies to strengthen and improve these perceptions may reduce out-migration for health care that is available locally” (2006, p. 173). Shreffler goes on to state that the “current rural reality for obtaining health care is that, with access to vehicles, modern highways, and health insurance, rural residents are not as affected by distance as they once were” (2006, p. 172). Therefore, her study suggested access is determined by what rural residents perceive as acceptable access. If their local health care

system is not acceptable to them, they have no reservation about going elsewhere to seek care they considered more acceptable.

In a study conducted by Watts, Dinger, Baldwin, Sisk, Brockschmidt, and McCubbin (1999) residents of five rural counties in western Illinois were surveyed regarding the accessibility and perceived value of health services. A total of 1079 subjects responded. The investigators concluded from the data that the rural dwellers placed the highest importance on access to emergency and primary medicine and the lowest values on home health care, transportation to health care facilities, and mental health services (Watts et al, 1999). In addition, prenatal care and alcohol and drug counseling were also deemed of low importance (Watts et al, 1999).

In an additional study conducted by Borders, Xu, Rohrer, and Warner (2002) 1,023 respondents were interviewed over the phone to explore satisfaction with care among rural residents of Texas. Their research concluded that rural residents were less satisfied with the quality of care they received compared to urban dwellers. Also, low to medium income (< \$25,000 and \$25,001-50,000 respectively) respondents were less satisfied with their medical care compared to high income residents. Finally, insurance coverage for at least 3 years was a positive predictor of satisfaction in regards to quality of medical care. These findings are consistent with results of the rural study conducted by DeFries et al in which older and well-insured individuals were found to be more satisfied with the quality of their health care compared to younger, uninsured individuals (1992).

Rural dwellers have many differences in disease and illness prevalence when compared to more urban dwellers. It has been well established in the literature that, overall, rural persons experience more health disparities, seek health care less often, and experience more occupational hazards. According to the Health United States 2001 Urban and Rural Health Chartbook, rural areas ranked poorly on 21 of 23 health indicators (Hartley, 2004). The Chartbook indicated that “rural residents tend to smoke more, exercise less, and are more likely to be obese” as compared to urban residents (Hartley, 2004, p. 1676). As for the residents of the West, rural residents were more likely to commit suicide and abuse alcohol than urban residents (Gamm, Hutchison, Bellamy, & Dabney, 2002; Hartley, 2004).

Chronic diseases are more prevalent in rural dwellers compared to urban dwellers. Diabetes affects 3.6% of rural dwellers compared to 3.2% of urban dwellers (Southwest Rural Health Research Center, 2004). Heart disease, hypertension, and stroke are also more prevalent in rural populations than urban populations (Southwest Rural Health Research Center, 2004). Heart failure and stroke are the most frequent diagnoses of rural elderly Medicare beneficiaries (Zuniga, Anderson, & Alexander, 2003).

Environmental exposures may also occur more frequently in rural settings. Jobs of rural dwellers typically consist of farming, forestry, mining, and recreation (Lee, 1991). These occupations expose rural residents to pesticides, fertilizers, mining metals, and heavy machinery. According to Schulman and Slesinger (2004), fatality rates among extractive industries such as farming, mining, logging, fishing, and forestry have consistently been above the national average for fatalities among non-extractive

industries. Forestry and logging were among the occupations with the highest fatality rates (Schulman & Slesinger, 2004). Mining fatality rates were lower than that of forestry and logging but were 7 times greater than that of the national average (Schulman & Slesinger, 2004). Many rural dwellers receive water from wells which have notoriously been linked to having high levels of contaminants including metals and bacteria, most notably *e. coli* (Aday, Quill, & Gibby, 2001).

Deaths from motor vehicle accidents (MVAs) are also more pronounced in rural areas than urban ones. Although rural dwellers experience half as many MVAs, the rate of injury and death is 2 to 5 times higher (Gamm et al, 2002). The golden hour of trauma is the hour immediately after a traumatic accident and when surpassed without appropriate treatment, the mortality rates begin to increase. More of the golden hour in trauma cases is consumed in pre-hospital transport compared to urban areas as it can take twice as long for ambulances to arrive on scene in rural settings (Gamm et al, 2002).

Finally, the availability of oral health care and dentistry are more limited in the rural setting. According to the American Dental Association (ADA), community water fluoridation is the single most effective public health measure to prevent tooth decay (2005). Fluoridated water can decrease tooth decay by 20-40% (American Dental Association, 2005). Typically the water source from rural dwellers is well water which is not routinely fluoridated. Combine the lack of fluoridated water with fewer dental providers and earlier tooth decay and tooth losses are seen. According to the American Dental Association (2002), numerous studies have shown that having dental decay and

loss is associated with poor nutrient intake. These factors ultimately affect nutrition and infection risks, especially in elder residents.

Summary

As evidenced by the literature review, many factors affect access to health care among rural residents. Availability of resources, personal resources needed to obtain care, cultural and regional beliefs about health, and perceptions of illness are all factors that can influence rural residents' access to health care. Extensive research has been conducted about some aspects of rural health care (e.g. resources and health care seeking behaviors) while knowledge about other areas is scarce. One area where additional research is needed is perceptions of healthcare access among frontier residents. Rural healthcare access and its barriers in general have been studied extensively but frontier residents' perceptions regarding health care specifically were limited.

A study focusing on frontier residents' perception of access to health care can contribute to an increased awareness of health care factors important to frontier residents. Information obtained could help alter public policy in an attempt to improve health care access among frontier populations of America. The health care community could better understand reasons frontier residents actively seek health care and reasons they don't. Through this research, perceived barriers to health care access among frontier residents will also be investigated. The information obtained could also be used in education for both health care personnel and frontier community residents to enhance health care access opportunities for frontier dwellers. Finally, information obtained from this study

may alter the approach of health care providers to dwellers of frontier communities in order to improve their overall health.

CHAPTER THREE

METHODS

In this chapter, the methods used to address the purpose and aims of this study are described. The study design, population and sample, data collection procedure, and human subjects' protection process are summarized. Finally, the method of data analysis is discussed.

Design

A descriptive qualitative approach was deemed the most appropriate method due to its ability to capture oral and written accounts of the describer's experiences and offers a comprehensive summary of an event in everyday terms without objectively quantifying the data (Sandelowski, 2000). According to Sandelowski, this type of description allows for "low-inference", taking the describer's account as "the end product" and not "re-presenting" the data to fit the researcher's description of the account (2000, p. 335). This method also adheres to a more naturalistic view, studying phenomena in its natural state without pre-selecting variables to be manipulated (Sandelowski, 2000). This tactic also is aimed at data collection of the who, what, when, and where of events according to the illustrator and without the "mandate to re-present the data" (Sandelowski, 2000, p. 338).

Population and Sample

The purpose of this study is to examine perceptions of health care access among frontier residents. There are many areas in Montana that can be defined as frontier. The frontier community that was chosen as the site to gather data regarding the specified topic lies in a mountain valley of southwest Montana. The nearest micropolitan area is 65 miles away with the nearest hospitals and health care access being 65, 70, and 73 miles away (Google Earth, 2007). Emergency medical service personnel in the area are all voluntary as are fire personnel. The frontier community is composed mostly of privately owned ranchland creating a strong economic association with agriculture. Its main economic industries include farming, recreation, fishing, and hunting (U.S. Census Bureau—Fact Finder, 2000).

According to the 2000 Census, the community's population was approximately 114 persons with the total population of the county being at 9,202 (U.S. Census Bureau—Fact Finder, 2000). Of the 114 residents, 91% were 25 years of age and older and 96.5% were white (U.S. Census Bureau—Fact Finder—Fact sheet, 2000). The median household income was \$25,000 (U.S. Census Bureau—Fact Finder—Fact sheet, 2000).

The sample for the research was recruited through convenience sampling and included 11 community residents. Initial contact with one of the residents was obtained through a personal friend of the researcher. The friend was born in the community and has many family members who still reside there. Each person was initially contacted by phone to determine interest in being a research participant. Once the initial person was contacted, agreed to participate, and was interviewed, a “snowball” approach was used to

gather additional names of other residents who might be willing to be interviewed. Criteria for inclusion in the study were: age 21 or older and residing in the target community. The interviews were conducted in the place of preference for the individual which included four local establishments including two restaurants/bars, a gas station, a general store, and three occurred in the residents' homes.

Rights of Human Subjects and Consent

An application to involve human subjects was submitted to the Montana State University Human Subjects Review Committee in the fall of 2007 and approval was obtained on October 29th, 2007. Before each interview was conducted, verbal consent was obtained by the researcher via telephone for potential participants. During the telephone call, individuals were given explanation regarding the purpose of the study and the methods of obtaining information. Potential participants were informed that participation was entirely voluntary, confidentiality precautions would be adhered to, and the length of the interviews would be no more than one hour. Prior to the actual interview, participants were provided a written consent form (see Appendix A) which contained information about interview length, the right to stop the interview at any time and/or could refuse to answer any question they did not wish to answer, the type of questions that would be asked, the reason for the study, and that the interview would be tape recorded. A subject consent form for participation in the project was used to further inform participants of their rights and the structure of the interview. Their signature for consent was obtained prior to the interview questions. Interviews were tape recorded and

later transcribed by a transcriptionist. No identifying information was asked during the interview to keep the information confidential. The tapes were destroyed after transcription. The only risk identified for participants was inconvenience in the time taken in the interview. The potential benefit for the participants related to their contribution to nursing research and to raise awareness of access to health care in frontier environments.

Procedures for Data Collection

Data were collected through face-to-face interviews with residents. A set of open ended questions were used to initiate the interviews with additional questions being asked based upon the residents responses (see Appendix B). Prompts and additional questions were asked to encourage participants to clarify and expand on their responses. Therefore, each interview had similar structure but was unique in how further data were obtained. The timeframe for data collection was during the late fall through the winter months of 2007.

Instrumentation

A set of open ended interview questions was developed by the researcher to address the purpose of the study. Open-ended questions (see Appendix B) were used because they allowed the participants to respond in their own words and to elaborate on their perceptions. Responses by those being interviewed were followed by additional prompting questions that were asked. The interviews were recorded using a handheld tape recorder.

Data Analysis

A “low inference” analysis style was used to interpret the data. This approach allowed the researcher to act as an interpreter of the data as well as develop a categorization scheme whereby the data were sorted and organized. The entire data set from the interviews was converted to smaller phrases/concepts that were grouped according to relatedness. In-depth analysis of the data began after all 11 interviews were completed and transcribed. However, general data analysis occurred concurrently with the interviews allowing the researcher to develop common themes as the interviews progressed. The analysis consisted of summarizing the content of the interviews by identifying themes or patterns. The researcher then categorized responses based on those identified themes. The data were then arranged in the order of most prevalent pattern for the topic in question to least prevalent pattern. Descriptions of the patterns were then formed by reflecting upon the participants responses, using direct quotes from the participants to substantiate the pattern. Extensive data interpretations were consciously avoided by the researcher to circumvent re-presenting the data in the researcher’s own terms and to adhere to a more direct description of the participants’ responses.

CHAPTER FOUR

RESULTS

The purpose of this study is to examine perceptions of health care access among frontier residents. Discussions of the results are organized according to the aims of the study. This chapter discusses the frontier samples' (a) demographics, (b) perceived health status, (c) health care access resources and health care needs of the community, (d) utilization of health care services, (e) reasons for seeking care, and (f) satisfaction with health care access options.

A total of 11 interviews were conducted to address the purpose and aims of the study. A convenience sample was used. Time constraints of the researcher and distance to the frontier town were major limiting factors in the total number of interviews. However, the purpose and the aims of the study were met and some degree of saturation was noted.

Initial contacts were identified by a former resident of the frontier town who gave the researcher names of potential participants. Once the initial participants were recruited, a snowball approach was used to recruit the remainder. All interviews were conducted in a selected frontier town in Southwestern Montana. Interviews took place in four local establishments including two restaurant/bars, a gas station, and a general store, and three occurred in the residents' homes. Interviews lasted from 30 minutes to 1 hour and were recorded using a handheld tape recorder. The interviews were later transcribed by a professional transcriptionist after all identifying information had been removed.

Interviews were then extensively read to extract common themes and then coded by the researcher to address the aims of the study.

Demographics

Of the 11 people who participated in the study, 9 were female and 2 were male. All participants were Caucasian. Ages ranged from 38 to 76 years of age with the median being 51 years of age. Most people interviewed had lived in the frontier town for many years with years of residence ranging from 2 to 57 years and with the median being 29.7 years. Two of the participants were born in the frontier town and remain there today. Nine of the 11 participants were married, one resident was widowed, and one other was single. Three of the interviewed residents had children who live in their households. Four of the residents interviewed owned businesses in the frontier town; four were part of full-time ranching operations; three were part-time employees of the local restaurant/bar and part-time ranch hands. One interviewed resident was part of the voluntary EMS personnel for the area. Health insurance coverage was noted among 8 of the 11 participants. Two of the participants were covered by Medicare with one having supplemental insurance as well. The remaining six participants who were insured had coverage through private insurance companies.

Health Status

In terms of health status, 10 of the 11 participants felt they were overall healthy. The one respondent who felt he was unhealthy revealed he “. . . need[ed] to lose some weight and exercise more.” Four of the 11 residents felt they were healthy because of

their lifestyle of working on ranches and the location of their town. One respondent stated, “[I’m] physically active . . . we work on ranches. That keeps us physically active.” This lifestyle factor was reiterated by other residents who stated, “. . . because of our lifestyle, we are too busy to get sick. . . . Where we live is a great thing. Headaches and stuff, you know, just kind of go away” and “I know because of my lifestyle. I know what kind of life we live . . .” An older resident revealed the same insight into lifestyle; “I think lifestyle [keeps you healthy], slower paced lifestyle. You’re not meeting deadlines and all that kind of stuff. [You are] on your own time frame.”

Additional factors in keeping healthy were also noted by other residents. One resident felt she was healthy because, “. . . we get enough sleep. We drink our milk. We make sure we take our vitamins and stuff. That’s the only way I can do it. Eat good.” Eating well and eating healthy was seen as a factor in keeping healthy by another resident who stated, “Well, I suppose I have good eating habits. When I had a hired man, I had to cook three squares a day and regular eating.” An older resident stated she was healthy because “I’m still able to take care of myself and my house.”

Health Care Access Resources and Health Care Needs of the Community

All residents interviewed felt they had some form of access to health care resources. Five surrounding micropolitan areas were listed as places health care providers and facilities were located. Hospitals, clinics, doctors’ offices, chiropractors, urgent care centers, and emergency departments were areas residents mentioned they could access care. Two of the participants mentioned using a naturopath for health care needs. One

resident used a health center because she lacked health insurance. The health center's fees were based on a sliding scale.

Word of mouth was the most common way of knowing where to get care with 7 of the 11 residents interviewed stating they used this method. One resident stated,

You know probably word of mouth is the best [way to know where to get care].

You hear good and bad about every hospital in the surrounding area. And I guess, you know, word of mouth is kind of where they go. That's where I heard about this doctor I just went to recently.

This was reiterated by another resident who stated,

I mean, in a small town, names go around. Don't go to that one, you know, because he will rip you off on every test possible. Go to that one. Don't go to her because, you know, she doesn't like this.

One resident stated, "If you live here, you're going to know" and another stated, "I guess we just know where to go. Either from experience or some other peoples' experiences." One elder resident stated, "Lots of times it's—well, somebody has told us about them."

"Going to town" and newsletters were additional ways people found out about health care resources. One resident responded, "They just go to town. We just went to [town]. We do everything in [town]." Another revealed, "A lot of it is word of mouth and where it's most convenient for us to go. If we bank in [town], we maybe get our groceries in [town] and our doctor is there." This was mentioned by another resident who stated, "We have to go there to pay taxes, buy your license, and buy your groceries. It's the way

life is out here.” Newsletters and ads were mentioned by one resident as a way of knowing where to get health care. She stated, “. . . there’s ads in the [paper of a town 70 miles away] all the time . . . they have the doctors listed, the nurses. [Town 65 miles away] sends out letters periodically to let you know. . . .”

Home remedies were an additional health care resource. Therapies such as teas and oils were mentioned by three residents as ways to take care of ailments. Some residents commented on taking care of their problem at home first. One resident stated she would seek a health care provider only if “. . . [The illness] is out of the ordinary that I haven’t experienced yet.”

Three residents mentioned seeking advice regarding health care from a local resident who was a former nurse. “She’s an [Emergency Medical Technician (EMT)] on the ambulance. . . . She found out [my daughter] had chickenpox because we had never seen it before.” Access to the volunteer ambulance service in general was mentioned by five residents. One Emergency Medical Service (EMS) volunteer stated that even with the ambulance service, residents would try to take care of their ailment themselves. “Even people that need [the ambulance] don’t always call us. There’s one guy down the road that was having a gallbladder attack and he drove himself to the hospital. [Residents] don’t always call us”, she stated.

Residents’ perceptions of health care access needs for the community were also investigated. All residents felt a local provider would be convenient to have available. “Well, someone to treat the minor things; colds, flu shots, certain vaccinations. I think it would be cool if you could . . . administer stitches. Pretty minor stuff.” Another resident

revealed, “Just the basics. I don’t think we need an operating room. . . . Just the basics.” Another stated, “I think [having a local provider] would be neat. . . . Someone to pay a visit out here or house calls.” One resident stated that a local provider would not be used by all. “It’s just like the hairdresser out here, not everybody uses her. A lot of people still go everywhere else,” she stated. One resident mentioned the need for more acute services locally and stated,

[We just] need something a little closer here for emergency wise. We’re so darn far from help. I’m on fire and ambulance crews and you get somebody hurt badly, they’re in trouble. It’s just so far. Just need something closer.

Three residents stated they would like to see a nurse practitioner in town. “I think a little office here might not be extremely successful, but I think it would be a great benefit to the community and the nurse practitioner,” she stated. When asked what health service she would like another resident responded, “Maybe a nurse practitioner or somebody that could diagnose and maybe even write out a prescription.”

One resident mentioned the need for homeopathic medicine: “I think homeopathic doctors; just things that have been around for years would help these people. . . . The expense of the drugs and everything, people are just trying to stay away from that as much as they can.”

Other residents felt the community needed to care for certain age groups. Two residents mentioned needs for older residents, two residents mentioned a need for children services, and two mentioned insurance needs. One resident stated, “For out here I think it’s the older people. . . . It’s the older people who live by themselves. If you don’t

see them for a couple days, you're like, okay, what's wrong." Another resident expressed the same idea; "You look at some of these older people and there's a home health. . . . It's the older generation and middle generation [that needs help]." One resident felt it would be beneficial to the community if health care resources for children were in their town.

She stated,

. . . The little kid stuff. Like if the children got hurt or the children got sick, it would be nice to have somewhere, you know, you could run them into town instead of having to drive an hour and a half.

In regards to the need for insurance one resident stated,

You have to have some kind of insurance out here, because you just never know when your horse is going to fall on you or my husband just wrecked on the four wheeler It's just not—it's not small injuries here. When somebody gets hurt out here, it's bad.

Utilization of Health Care Services

All residents interviewed had seen some type of health care provider in the recent past. Time frames since the last health care provider visit averaged from 3 months to 2 years prior to the interview. The average time for most respondents was 1 year since their last visit with a health care provider. Ten residents sought care from a physician while one used a naturopath for most of her care. Most had seen their primary care provider for annual physicals while others were treated for various minor ailments including sinus and pulmonary infections.

For more serious health conditions residents revealed a “by-pass mentality” about local health care resources. One resident stated, “It depends on the type of care we need. If we have anything serious, heart thing, colonoscopy, those types of things, we would go to [an urban area 130 miles away].” This “by-pass mentality” was also revealed by other residents. One stated, “Like a sinus infection, I’m not going to be particular about which I go to. If my husband is having heart flutters or something . . . I’m not taking him to [a more local provider]. I’m not taking him to [a town 70 miles away]. He’s going to [an urban area 130 miles away]. . . . It depends on the condition.” Another revealed, “Well, we would go to [an urban area 130 miles away] if it was anything bigger than what they could take care of [locally]. . . . I imagine if we found something real major, we would probably go to a bigger facility for a second opinion.”

Children and their need for health care services were seen differently than those of the adults. Some of the residents stated they would hold off on treatment for themselves to see if their ailment would go away. One resident stated, “It does kind of scare me a little bit because if anything were really wrong with us [adults], we might wait too long.” However, in terms of children, care would be sought right away. When asked what determines if children see a health care provider one respondent stated, “If they’re running a high fever and they’re sick or if they’re hurt.” When the same question was asked in regards to her seeking care for herself specifically she stated, “I have to be dying. I don’t go very often for myself because I can’t afford to lose work. I have to keep working. I just try to take care of it myself. I’ll suffer before I go.” Another respondent

stated, “If [my children] need to go, they go. There’s no stopping. We keep gas in the car, a tank of gas.” Another resident’s statements portray the hardness of her children;

They pretty much know—they aren’t whiners. They know if they come to me they’d better be bleeding or it had better be broken, because I don’t want to hear whining. . . . If they really start to whine, then you know it’s bad because they get no sympathy from me.

Barriers to accessing health care were revealed by many respondents. Cost and high deductibles were seen as obstacles by some while others were not deterred by health care fees. “I mean, if you’ve got something wrong with you, you’ve got to go to a doctor,” one resident stated. When asked what would keep him from seeing a health care provider one resident responded,

Well, I guess one thing, yeah, cost. A colonoscopy is two to three grand. If they were 500 bucks, I would probably have had it done last fall. So cost. Yeah, cost is a biggie. Our health insurance—we do have health insurance, have to pay a high deductible. Ten, 20 years ago, we could all afford lower deductibles. Now we can’t.

When asked if cost affected seeing a provider during acute injuries the same respondent went on to say,

Well, no, cost is not—it’s just—we don’t go to a doctor much. If it’s broke, a bone sticking out, yeah, okay, we’ve got to go. I guess we’re going to a doctor. Is it broke or just sprained? I’ve had rib problems three or four times I think in the last 20 years, probably broke or separated, whatever, I don’t know, not real bad

like where I thought I punctured a lung, but I know they're fractured or broke.

I've never been to a doctor for them. They're just going to say, hey, you've got sore ribs. Well, I know that. I don't need you to tell me that. I know they are. So I never went to a doctor for it.

Another respondent revealed cost as her only reason for not seeking health care. "[Cost] is the number one thing. I think it's extremely expensive. I think the common person . . . who work really hard can't afford to go just for anything," she responded. When asked about places to get health care, one respondent revealed, ". . . it comes back to cost again. You're going to have to pay the office fee; you're going to have to pay all that other crap. When you don't have insurance, it's a problem."

Cost was not found to affect older resident's or children's access to care. One resident responded, "Yeah, [cost affects getting health care] . . . for me. I mean, it doesn't affect for my kids because they're going to go. . . . They are always my top priority." Both older residents who were interviewed had Medicare and felt cost was not a factor in them seeking health care. One stated, "[Cost] doesn't affect us because we have Medicare and we also have a supplement."

Distance was not a major factor in seeking health care. Eight of the 11 residents interviewed felt distance was not a barrier in accessing health care resources. Some residents felt distance to health care was a known factor and part of living in their frontier town. One resident stated, "You know, we're used to [distance]. We live with it. It's just a known factor." This was reiterated by another resident who stated, "We're used to distance because we have to drive. We have to drive to get groceries. If you have to drive

to go to the doctor, you go. It's just the way it is." Another resident stated distance didn't affect her getting care but it did prevent her from seeking care for minor injuries. She responded, "I mean . . . if you cut your finger and you think you might need stitches, I might not go because it is so far." One resident who felt distance was a factor in seeking health care revealed, "With the price of gas right now, if you don't think you need to go, you don't. So if you can wrap it up with a band-aid or get by, that's what you do".

Finally, additional barriers to health care access were weather, road conditions, cost of gas, travel time, and taking time off work. One resident stated, "The only thing [that would keep me from seeking health care] might be the roads, you know, if the weather was real, real bad." Weather was mentioned as a potential sole barrier in two resident's access to health care. "The weather. . . . Oh yeah, I wouldn't start out by myself," one stated.

Reasons for Seeking Health Care

Reasons for seeking health care resources were many. Most cited they would get health care if an acute injury occurred, if home remedies had failed, if their illness was persistent, or for preventative services. Acute, accidental injuries were mentioned as one of the primary reasons for seeking care. One respondent stated her husband did not have a regular physician but after a chainsaw accident he ". . . needed a doctor that day." "Busted bones, cuts . . .," were reasons for seeking care mentioned by another. Another resident who was deterred by cost in seeking care, stated that emergency situations were treated differently; "[During an emergency] you don't think about that stuff. You just go

and do it. Definitely an emergency situation. I wouldn't even think twice about [going to a health care provider]." Another resident stated she would seek a health care provider for "An infection . . . or gallbladder pain" and later stated, "If I get sick enough, I'll go."

Duration of illness was mentioned by a few residents as reasons to seek a health care provider. One respondent stated, ". . . if it's not getting better after a couple of months." Duration of illness was also noted by other residents. "When [name deleted] had that bad cold, couldn't get over it, he finally went to the ER and they said he had pneumonia," one stated.

Preventative health care services and annual check ups were sought by 9 of the 11 residents interviewed. One elder resident stated, "Well, we always get our yearly. . . . Always do a yearly one." Another resident mentioned seeking a health care provider for "hereditary things like high blood pressure and cholesterol. . . ." One resident sought care from a naturopath for her ailments. "I go when I'm not feeling well. [The naturopath] was treating me for cancer. . . . She's treated my animals . . . now she's going to people. She's wonderful."

Another resident sought care after self care practices failed. "Essential oils, things like peppermint; you know if you get a stomach ache. It's like the cold, it's the flu, you know, it's a virus. You're going to get over it. You don't do antibiotics unless we have to," she stated. She went onto say,

[We will go a health care provider] if I think it's something beyond what I can deal with. But you just have to use your best judgment. If you think it's something you can deal with, the seriousness of it, if you think it could be something serious

or develop into, you go. . . . If I think I can deal with it, I'm darn sure going to deal with it before I'm going to jump in the car and drive.

Satisfaction Regarding Health Care Access Options

Satisfaction regarding health care access and access options were high. Ten of the 11 residents interviewed overall felt satisfied with the care they were getting from their selected provider. Health care provider attributes that were sought included being "friendly", having good communication skills, having "good bedside manner", being "available", being "accessible", and having the provider "take the time to visit." The one resident who was unsatisfied with her provider revealed the she was unsatisfied with

The medical profession in general. . . . I think they have a good deal more prevention [to teach] instead of waiting until you get sick and then try to cure. [Prevention] is not what they're learning in medical school.

Positive comments regarding where the residents sought health care were many. Overall, local health care providers were given high regards. Two residents felt the distance to health care facilities was close and therefore seen as a positive. Most residents felt confident in their providers' ability and felt the care they have received had been of good quality. One resident stated her provider had ". . . the best bedside manner and they treat you with respect and not like you're crazy. They feel for you, and I think that's huge." Another revealed, "I think we have great doctors, considering our location. . . . I think where we live are [*sic*] a big draw for physicians, and good physicians." One elder resident stated, "We like our doctor. . . . [My husband's doctor] is so wonderful with

older people. . . . He catches things. He finds things that sometimes we aren't even aware of.”

A positive aspect about the health center was cost of services. One resident who used the health center stated,

They do [the fees] based on your income. That's why we use the health center. They're pretty good about making sure they can give us samples on medicine. They'll give you \$100 off an x-ray, \$50 off needles and stuff like that. So that helps.

Nurse practitioner services were seen as a positive among some residents. One stated,

I know the one person that I [saw for] my shoulder, she was a nurse practitioner. Oh, yeah, she knew what she was doing. I mean some doctors, you try to explain to them and they just make too much out of something that's simple. She didn't do that. My shoulder hurt, she fixed it.

Two residents felt very satisfied with the naturopath and alternative providers from whom they sought care. When asked if she felt better after seeking the services of her naturopath one participant responded, “Oh, yeah. I know I do. I feel better. . . . I'm not against doctors. Broken bones and car wrecks, you need both.” One other resident who used an alternative provider stated, “There's a couple gals that we go to, because our daughter was burned when she was 2, so she's had things go on, and my family started out going to two in Helena and they are wonderful.”

Another resident mentioned cost of her health care fees as a positive factor. She stated, “The community place that I go to . . . they go by your income . . . as far as the whole appointment costing me \$150, I can usually get away like [*sic*] \$60 or \$80.”

Negative aspects regarding health care access revolved around cost and distance. One respondent felt distance was not a factor in *seeking* care but felt it was a negative about where he got his health care. “Distance for one thing. Yeah, it would be handier I guess if somebody made a monthly visit out here or something,” he stated. One resident who felt distance was just part of her lifestyle expressed distance as a negative health impact when it came to emergencies:

I mean, my biggest fear is an emergency. We can deal with the little things that happen. But my biggest thing is an emergency. We live a hazardous life, we really do. My husband is out there on a motorcycle and horses and he’s had wrecks, he’s by himself, you know, and it scares me. We have no cell phone connection out here.

Cost was also an additional negative factor in regards to satisfaction of health care services. Eight of the 11 residents interviewed felt cost negatively affected their satisfaction with the health care system. When choosing a provider the cost of service was deemed important by one resident. She stated, “Cost. Yeah, big time cost [is a factor when choosing a health care provider].” Cost of health care actually altered the health care seeking behavior of one resident who stated,

I know how expensive it is. We have a high deductible health plan. We're not going to go running. To me, the thing out here is preventative medicine, home remedies. Like I said, I grew up with that. And so it's worth it for us.

The same resident went on to say,

I think the price is outrageous. . . . I think for what we get, we're paying way too much for the care that we're getting. . . . Our family has a \$10,000 deductible. . . . You have to decide what you can afford. . . . Let's face it, the money is what I think that keeps a lot of people away and turn to other things.

In terms of cost, insurance reimbursements were a factor mentioned by one resident who stated, ". . . a lot of it is insurance companies too because they won't pay."

Other negative factors mentioned by the residents were scheduling, wait times, and the inability to speak directly to the health care provider. "They're not there on Friday. If you don't make an appointment, they're not going to see you unless they have openings," one resident stated. The one resident who felt wait times were a negative stated her time was important to her and taking time off work to go to the doctor and then wait "an hour" in the office was unacceptable.

CHAPTER FIVE

DISCUSSION

The purpose of this research was to better understand frontier residents' perceptions of their access to health care. The specific aims of the study were to (a) explore frontier residents health care access resources, (b) investigate frontier residents' utilization of health care services, (c) search for reasons frontier residents seek health care (d) and explore the residents' overall satisfaction regarding their health care access options. This chapter includes a summary of the results, limitations to the study, implications for health care practice, recommendations for future research, and a conclusion.

Summary

The results of this study revealed relevant data regarding frontier residents' perceptions of health care access. All residents stated they had visited a health care provider within the last 2 years. In relation to Aday and Andersen's framework (1975) for health care access, key findings pertain to four of the five concepts in their framework. None of the results pertained to health policy, the fifth concept in their framework.

Characteristics of the Health Delivery System

Participants mentioned many resources for accessing health care. Emergency departments, urgent cares centers, primary health care providers, health clinics, local ambulance services, a local nurse, and alternative health sources were areas participants

felt they could access health care. Areas to access health care were located in micropolitan/metropolitan areas at least an hour's drive from the frontier town. Although distance was not seen as a factor by most participants in accessing health care, most felt having access more locally would be convenient. Travel time and wait times were mentioned by only a few participants as potential downsides to accessing health care. One resident stated her time was very important to her and she felt that, after driving and taking time off work, health care facilities should be more sensitive in ensuring her appointment time was met.

Utilization of Health Services

The participants in this study utilized health care services. Most participants had seen a primary care provider within the last 2 years. Annual exams were mentioned as the most common reason for visiting the health care provider. Other reasons involved acute health processes including sinus infections or accidents such as laceration, broken bones, or car accidents. More local services were sought for minor ailments or preventative services but when more major illnesses were involved (e.g. heart conditions) an entry into a farther, larger facility was noted and a "bypass mentality" of local services was seen.

Cost, weather, road conditions, cost of gas, travel time, and taking time off work were mentioned as barriers in utilizing health care services. The local nurse was utilized to gain information regarding health care by some participants. In addition, the local ambulance service was mentioned as an access point but was also noted to be bypassed in certain situations.

Characteristics of the Population at Risk

Many of the research participants used home remedies or the local nurse to improve symptoms before formally accessing a health care provider. Participants used teas, oils, and other home remedies at times to treat illnesses prior to seeking a licensed care provider. Age was also a factor in determining when care was sought. For children, care was sought more quickly when an illness became apparent. This is consistent with the results of Lee and McDonagh's studies (2006 a, b). For adults, care was delayed if they thought the illness would go away or if the ailment was minor. Health care was sought when the symptoms of the illness did not go away or if an acute injury had occurred including broken bones or lacerations. No specific time frame was consistently mentioned regarding how long the adult participants would wait before accessing a health care provider for illnesses. For the elder participants, they thought that Medicare allowed them to access the care they needed at any time. In addition, most participants felt they were healthy overall due to their lifestyle of working on ranches and doing physically demanding labor.

The cost of the care was a negative component of accessing care. Insurance deductibles and the cost of health services limited the type of health care the participants sought including preventative services such as a colonoscopy. Participants felt that if possible, they would forego care because of the expense. Many felt "waiting the illness out" or using at home measures helped cut costs. Ultimately, however, participants would seek care if the illness didn't go away or there were real concerns regarding major health issues or acute injuries.

Consumer Satisfaction

Satisfaction regarding health care providers was high. Participants felt their providers were competent and skilled. Thirty-six percent of the interviewed participants felt satisfied with the availability of their provider. Those who received care from nurse practitioners, naturopaths, or alternative providers were satisfied with the care. One resident was satisfied with her health care costs due to the sliding scale fees of the health center.

Factors that negatively affected satisfaction were few. The two most common factors were cost (mentioned by 73% of the interviewed residents) and distance. Most felt health care was too expensive due to cost in general as well as high insurance deductibles. Distance did not prevent many participants from seeking care but some felt unsatisfied with having to drive the distance in general. Having closer facilities was mentioned as a way to improve satisfaction. However, it was also mentioned that a local provider “might not be extremely successful” and may not be utilized by all of the residents. In addition, one participant felt it would be convenient to have a local provider who could write prescriptions although the researcher noted a local pharmacy did not exist. One participant felt the medical profession overall needed some restructuring in education from a model of disease treatment to one of prevention.

Limitations

The limitations to this study are primarily due to time constraints, limited funding, and distance to the frontier town. Time and funding constraints and distance to the

frontier town limited the researcher in the number of interviews that were conducted and, therefore, a small sample of only 11 residents was interviewed. This small sample size may limit the ability to generalize the results to the remaining residents of the selected frontier community as well as other similar frontier communities. Also, the frontier town selected was in southwestern Montana. Frontier towns of other parts of Montana and the U.S. may have different views on health care access. In addition, residents interviewed were mostly middle-aged white females. Data from frontier residents of female and male genders, different ages, and various ethnicities could potentially enrich the data.

Settings of some of the interviews may also have been a limiting factor and may have affected the quality of data collected. Residents who participated in the interview in their own home appeared to take more time in answering questions. Residents interviewed in the various local establishments were generally working, potentially causing these residents to rush their responses in order to get back to work.

Implications for Practice

Implications for health care practice generated by this study are many. According to this study, the primary reason for seeking health care was for preventative services or annual physicals. However, it was also noted that during times of illness adults would delay in seeking care to see if the illness would go away or if home remedies would help. This delay in seeking care can potentially result in harder to treat conditions or become hazardous especially if the disease or illness progresses to a life-threatening event or a serious chronic illness. Therefore, health care providers need to focus patient education

towards signs and symptoms of potentially serious or life threatening emergencies and ways to promptly access health care.

Educating frontier residents about when it would be the best course of action to use local health services (i.e. the ambulance, closer facilities) would also improve their access to health care. It was mentioned by one resident who volunteered on the ambulance that many times residents would by-pass their services in order to drive themselves to a health care facility. If residents understood the benefit of using the ambulance service when emergency treatment might be needed in-route, they could make a more informed decision about their transportation options. Increased use of the local ambulance could potentially improve its funding from the county as well. In addition, many residents revealed a “by-pass mentality” of local services to seek care at more urban facilities. Residents were willing to drive over a hundred miles to seek care for “heart things” or more serious illnesses. Educating these residents about the abilities of their local facilities and the need for immediate stabilization of certain ailments could improve long-term health outcomes. In addition to educating residents about closer services, educating residents regarding the benefits of farther services should be discussed as well. More urban areas generally provide more advanced services than more rural facilities. Educating residents about more advanced surgical, procedural, and therapeutic options for disease processes would broaden their knowledge about treatment of disease processes. However, it is important that residents are aware that acute injuries need to be stabilized immediately as time can dictate the degree of recovery and that more local services should be sought if acute care needs arise.

In regards to health care provider education, most residents felt having a local provider would be convenient but at the same time might not be utilized. A local provider may be impractical since there are few residents who live in the frontier town as well as the lack of other resources such as lab, radiological, and pharmaceutical services. Telemedicine is one potential solution for improving both the frontier residents' health care access while at the same time promoting the local community. According to Nesbitt, Marcin, Daschbach, and Cole (2005), the implementation of telemedicine into rural facilities was noted to improve perceptions of the quality of local health care which in turn could increase the use of the local facility. Offering this type of service to frontier towns could improve access not only to primary care but also to specialty services. It would also decrease travel time in accessing health care since they could receive services locally. Individuals could use internet webcams to see providers and discuss illness symptoms and disease prevention. Primary care providers in local, more urban areas could set aside one day a week to delivering telemedicine services to frontier areas. Frontier residents could be made aware of these services through their provider or local newsletters. However, the benefits of this service would be limited to education and verbal checkups only as local pharmacy, lab, and radiology services may not be in the frontier town.

Finally, primary care providers should take every opportunity available to educate frontier residents regarding health promotion and disease prevention. This research revealed that children were treated differently when illnesses became apparent and where readily taken to see a health care provider. Primary care providers can use these

opportunities to educate the parents regarding adult health matters as well. Focusing on the family as a whole as well as each of its members can allow primary care providers to thoroughly educate frontier residents regarding illness prevention and signs and symptoms of worsening conditions.

This research also revealed that health care costs delayed residents from seeking care. One potential solution to improve costs would be to set up a sliding scale fee based on income. This was noted by one resident who visited the health center and received services at a discount. Rural clinics can receive federal funding if they serve medically underserved areas. This allows these smaller clinics to offer discounted health costs to individuals based on income or family based on size. Furthermore, employment of cost-effective health care providers such as nurse practitioners and physician assistants could lessen fees for frontier residents as well. According to Burl, Bonner, Rao, and Kahn (1998), the use of a nurse practitioner/medical doctor team resulted in cost savings when compared to a medical doctor team alone (as cited in Miller, Snyder, & Lindeke, 2005).

Recommendations for Further Research

Until all Americans have health care access more research into the reasons for lacking the access is needed. In regards to frontier communities, more research needs to be done to enlighten health care providers regarding these residents' perceptions of what health care access means to them and reasons they attempt or don't attempt to access it. In addition, further research should focus on reasons rural dwellers delay seeking healthcare. By understanding reasons for delay, health care workers can alter their

approach in caring for these individuals to promote the best outcome in the most efficient manner. These types of research topics should include larger samples than the one presented here as well as include various geographical regions, races, and ethnicities.

Further research should also focus on cost related issues. Additional research into the use of nurse practitioners and physician assistants in rural communities should be done to determine if their care is more cost effective for rural dwellers. Research into insurance coverage and deductibles among frontier residents could enlighten health care providers, health policy makers, and governmental authorities regarding reasons for delaying health care access. Further research should also focus on the relationship between frontier residents with insurance and those without to determine the degree of influence on health seeking behaviors.

Research involving preventative needs and frontier residents' perceptions of these needs should also be addressed. Educating both health care providers and rural/frontier dwellers about benefits of preventative health care could improve the long-term health of these communities while allowing these individuals to maintain their self-reliance and work ability. Preventative education would also improve the cost of health care for these individuals. By improving frontier residents' awareness of disease symptoms, providers would be able to halt disease processes in their earlier, generally more easily treated stages.

Finally, further research into health care service utilization is needed. If health care providers understand the services that would be most utilized by these residents, health care systems could be altered to better meet their needs. This may prove to

enhance both the health of the rural dwellers as well as their satisfaction with the health care system in general. One specific component would be the use of telemedicine among frontier residents. Their perceptions regarding this technology and their potential use needs to be researched. Research into this new and innovative health care practice could influence future health policy and improve local access to primary care as well as specialty services for frontier dwellers. Improving our understanding of new models of health care delivery in frontier areas could promote a system of preventative health care in addition to increasing the sustainability of these communities.

Conclusion

Access to health care has been shown in the literature to improve health outcomes. Despite spending billions of dollars in health care, many areas of our nation continue to lack adequate access to health care providers. Some of these areas are rural and frontier designated regions. The findings of this study regarding frontier residents reveal that most residents feel they have health care access. Distance to facilities was seen as a known component of frontier life. Cost and insurance deductibles were deemed as barriers to accessing care for routine and preventative needs but would not prevent one in accessing health care for acute emergencies. In addition, satisfaction regarding providers and services was high.

Further research into frontier residents' health care access is needed by future nurses as well as other disciplines. Larger studies and studies of other regions and races are needed as well. Information learned through these types of studies will improve the

knowledge base regarding reasons health care access is sought and reasons it may be delayed. This knowledge could also assist in improving health care access for rural and frontier dwellers and change this population's use of care for acute service needs to one of prevention.

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APPENDICES

APPENDIX A

SUBJECT CONSENT FORM

SUBJECT CONSENT FORM FOR
PARTICIPATION IN HUMAN RESEARCH AT
MONTANA STATE UNIVERSITY

Project Title: Frontier Residents' Perceptions of Health Care Access

You are being asked to participate in a research study about access to health care among frontier residents. The purpose of the study is to gain a better understanding about health care access issues in frontier areas. You are being asked to participate because you are a resident of a frontier area. In order to participate, you must be able to understand and speak English and be willing to answer questions about health care access.

If you agree to participate, you will be interviewed once in the location of your choice. The interview should take no longer than one hour to complete but may take longer upon your request. The interview will consist of open-ended questions and will be tape recorded and transcribed at a later date. After the interview, no additional contact from the researcher will be required. You may elect to decline the interview at any point in time and at any point during the interview process. Declining participation will have no future impact on your health care access nor will any other adverse effects be seen. There will be no benefit to you during the study and the only risk is the use of some of your valuable time. During the interview, you are encouraged to ask questions if you do not understand a question or if additional clarification is needed. You may also ask additional questions regarding the research study.

Your identity will only be known by the researcher and will otherwise be confidential. The information gathered will be used for completion of a Master's Thesis and may be published in a health related publication. No identifying information will be used in either of the above. The interviews will be tape recorded, transcribed, and coded to remove any identifying information. The tapes will then be destroyed.

In the event your participation in this research directly results in injury to you, medical treatment consisting of mental health services will be made available. No compensation is available from Montana State University for injury, accidents, or expenses that may occur as a result of your participation in this project. Further information about this treatment may be obtained by calling Joshua Smith at (406)-721-3273. Montana State University will not be responsible for injuries or costs incurred during your participation in this study. Additional concerns or questions can be directed to Mark Quinn, Chairman of the Institutional Review Board at Montana State University. You may contact him by phone at (406)-994-5721.

AUTHORIZATION: I have read the above and understand the risks and benefits of this study. I, _____, agree to participate in this research. I understand that I may later refuse to participate, and that I may withdraw from the study at any time. I have received a copy of this consent form for my own records.

Signed: _____ Witness: _____
Investigator: _____ Date: _____

APPENDIX B

INTERVIEW QUESTIONS

Interview Questions

Definition of health care provider: A licensed medical professional who can diagnose, prescribe, and order diagnostic tests (e.g. physicians, physician assistants, nurse practitioners, surgeons)

1. How would you rate your health on a 0-10 scale with 0 being healthy and 10 being unhealthy?
2. What type of health care problems or categories would cause you to see a health care provider instead of taking care of it yourself?
3. When you choose a health care provider what things are important to you?
4. When you need to have a health problem looked at, where can you go?
5. What type of places do you have where you can get health care?
6. How does distance affect you getting health care?
7. What determines if you will go and see a health care provider?
8. What would keep you from going to see a health care provider?
9. Have you been to a health care provider recently?
10. How often do you see a provider?
11. What are the positives of where you get your health care?
12. What are the negatives of where you get your health care?
13. How satisfied are you with your health care?
14. What would make you feel satisfied in regards to where you get care?
15. What do you feel are the health care needs of your community?
16. How does your community know where to get health care?

17. If you could have your choice, what health care services would you want in your community?
18. How does cost affect you attempting to get health care?
19. How does the quality of care affect where you go to get care?
20. When you do seek care, how satisfied are you with the care you receive?