BARRIERS TO ACCESSING PRENATAL CARE
IN LOW INCOME RURAL WOMEN

by

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Laci Ann Burk

April 2012
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Barriers exist to accessing prenatal care for low income women throughout the United States, such as scheduling appointments, finding childcare, and paying for prenatal care. Women who reside in rural areas experience barriers to accessing prenatal care unique to their geographical locations. Barriers to accessing prenatal care have been associated with less than optimal health outcomes for both women and infants.

The purpose of this study was to explore the barriers to accessing prenatal care that are specific to low income rural women. A qualitative approach was used by conducting telephone interviews using open ended questions with low income women from one rural county in Montana. A sample of 6 women was recruited from the Women, Infants, and Children (WIC) nutritional supplement program in a rural county. Patterns were identified from the interview responses and categorized into themes that allowed for identifying common barriers.

The results from this study revealed that low income rural women reported an overall lack of providers who offered prenatal care in their area. Difficulty with scheduling transportation to and from appointments was reported in half of the women, as well as distance to the nearest hospital for 2 of the women. These same 2 women also reported that if a complication arose during pregnancy or if a woman were to have a high risk pregnancy, distance to the nearest hospital or provider would be a barrier. There was difficulty recruiting a larger sample population, therefore the sample size of 6 women was a major limiting factor of this study.

Implications for practice included a need for recruitment of providers in rural areas, and the potential use of nurse practitioners for providing high-quality, low cost prenatal care for low income rural women. The implementation of group prenatal care in rural locations and investing in rural communities were also implications for future practice. Lastly, the results from this study may help with future practice and research to help focus on the needs of this unique population for gaining improved access to prenatal care.
CHAPTER 1

INTRODUCTION

Most studies that evaluate the relationship between prenatal care and the area in which women reside, indicate that women who reside in rural areas have less adequate prenatal care than women residing in urban settings (Epstein, Grant, Schiff, & Kasehagen, 2009). This presents a great risk for the health outcomes for both women and infants who are receiving inadequate prenatal care in rural areas. Some investigators have found that rural women receive less than adequate prenatal care in part due to barriers of accessing prenatal care. There have been several documented barriers to accessing prenatal care in women throughout the United States. Some of these barriers include cost of care, transportation, prolonged time in the waiting room, anxiety and uneasiness with provider, and childcare difficulties (Beckmann, Buford, & Witt, 2000).

Little is still known about the barriers specific to women of low income residing in rural areas regarding access to prenatal care during pregnancy (Omar, Schiffman, & Bauer, 1998). In order to learn more about the potential barriers specific to low income rural women accessing prenatal care in a western state, further research needs to be conducted. If the specific barriers that are identified can be addressed, this may lead to adequate prenatal care and improved health outcomes for both women and infants.
Background and Significance of the Study

Rural women face many of the same, as well as different barriers when accessing prenatal care than their urban counterparts. Rural women experience a higher rate of adverse health outcomes during the perinatal period than urban women. Some of these adverse outcomes include preterm birth, low birth weight, and an increase in infant mortality (Hart & Lishner, 2007). Other adverse health outcomes experienced by rural pregnant women can include increased maternal morbidity and mortality (Epstein et al., 2009). The higher rate of adverse outcomes and inadequate prenatal care among rural women is related to limited access to prenatal care for this population (Hart & Lishner, 2007). Access to prenatal care not only provides a measure of quality of healthcare and outcomes during pregnancy, but availability of well child care for these infants in the future (Epstein et al., 2009).

The literature supports that timing and initiation of prenatal care, barriers to prenatal care, and cost effectiveness of prenatal care are all aspects of this issue that need to be further explored specific to low income rural women. If barriers that are specific to low income women who reside in a rural western state can be explored and identified, interventions can be tailored to this population to improve these adverse health outcomes.

Initiation of Prenatal Care

A standard indicator of adequate conventional prenatal care is initiation of care within the first trimester of pregnancy (Epstein et al., 2009). A study conducted in a principally rural state examined prenatal care access among low income pregnant women
and revealed that these women were initiating care later in their pregnancies and had fewer total visits than women who had a higher income (Schillaci, Waitzkin, Carson, & Romain, 2010). The likely reason for this finding was reported as women not being able to access a provider, cost of prenatal care, or being uninsured (Schillaci et al., 2010).

Initiation of prenatal care after the first trimester has been linked to inadequate care and adverse birth outcomes including preterm labor before 37 weeks gestation and birth weight below 2,500 grams (Schillaci et al., 2010). Schillaci et al. (2010) suggested that “mothers receiving inadequate prenatal care have been shown to have greater than one and one-half times the risk of delivering low birth weight babies” (p. 2).

**Barriers to Prenatal Care**

Barriers to prenatal care have been associated with deficient care and adverse outcomes. These barriers have been documented and supported by the literature for years, and include obstacles such as transportation, scheduling, child care, and negative attitude towards prenatal care and provider (Omar et al., 1998). In a study of pregnant women and their perceived barriers to prenatal care, Beckmann et al. (2000) found that both urban and rural women reported cost as a major barrier.

Women of low income in rural areas face not only cost as a major barrier to accessing prenatal care, but limited access to providers as well (Omar & Schiffman, 2000). Having limited access to providers in rural areas along with the financial burden of paying for healthcare services may influence these women and whether or not they will initiate access of prenatal care and continue to access prenatal care throughout their pregnancies (Omar & Schiffman, 2000). With known barriers such as limited prenatal
care providers in rural areas and cost of care, low income rural women are at greater risk for receiving inadequate care compared to their urban counterparts.

Associated Costs

Adequate prenatal care is associated with positive birth outcomes (Beckmann et al., 2000). The literature supports the findings that low income women initiate prenatal care later in their pregnancies which ultimately leads to inadequate care. These two factors together greatly increase adverse birth outcomes such as preterm labor and low birth weight.

The costs associated with hospitalization from infants being born preterm and/or of low birth weight is immense. In the United States alone, 4.6 million infants were hospitalized during 2001, with only 8% of this number being preterm and/or low birth weight. These preterm and/or low birth weight babies, however, accounted for 47% of all hospital admission and infant care during hospital stays during this same time period, which totaled 5.8 billion dollars (Russell et al., 2007).

The cost of prenatal care itself is due to the number of visits a woman has with her provider, as well as the type of provider chosen. The American College of Obstetricians and Gynecologists determines the guidelines for the number of visits deemed necessary for adequate prenatal care (Omar & Schiffman, 2000). As stated previously, experts agree that the first prenatal visit should be initiated during the first trimester (Epstein et al., 2009). The American College of Obstetricians and Gynecologists recommend that the first visit should be initiated between 6 to 8 weeks of pregnancy. After the initial visit, a woman should see her provider every 4 weeks until
she reaches 28 weeks gestation, then visits are scheduled every 2 to 3 weeks until week 37 of the pregnancy. Once a woman reaches the 37 week mark, weekly visits are recommended until delivery (Blue Cross and Blue Shield Association, 2006). While these guidelines are accepted and practiced, there is no evidence that justifies the guidelines for women who have low risk pregnancies. By screening women who are low risk, the number of prenatal visits could be tailored, thereby making prenatal care more cost effective (Omar & Schiffman, 2000).

Bircher (2009) suggested one cost effective approach to prenatal care in the poor communities of migrant, rural farm workers. Utilization of nurse practitioners as primary providers for pregnant women provided a more theoretical and family approach to care than traditional physicians because of their training. In addition, attention to the patient’s environment socially, culturally, and occupationally helped the nurse practitioners properly assess, diagnosis, and create a plan of care and properly educate this population about a healthy pregnancy (Bircher, 2009). Another benefit of using nurse practitioners as prenatal care providers is that on average care cost 20% less than care provided by a physician (Bircher, 2009).

Statement of the Problem, Purpose of Study, and Research Question

As presented thus far, there are several barriers that women face when accessing prenatal care. Still, little is known about the potential barriers specific to low income rural women accessing prenatal care. The purpose of this study was to explore the barriers to accessing prenatal care that are specific to low income rural women. This
population is in a unique position because barriers to care may be more common, and barriers may be unique that are distinctive to the geographical location in which this population resides. The research question that was addressed was: What barriers are specific to accessing prenatal care among low income rural women? In this study, the research question was addressed by conducting telephone interviews with a sample of low income women who resided in a rural area of one western state who were currently pregnant or had given birth within the past 20 months.

Theoretical Framework

“The Neuman Systems Model is based on general system theory and reflects the nature of living organisms as open systems in interaction with each other and with the environment” (Freese & Lawson, 2010, p. 310). The Neuman Systems Model was developed by Betty Neuman, who suggested using a wholistic approach to care for a client using the focus of understanding the client in interaction with their environment (Freese & Lawson, 2010).

This wholistic approach is applied to stressors that a client encounters that lead to either positive or negative outcomes. Levels of prevention are seen as interventions that can help the client achieve stability. The Neuman Systems Model suggests beginning an intervention when a stressor is anticipated, or a known stressor is recognized. Three interventions are identified; primary, secondary, and tertiary preventions (Freese & Lawson, 2010).
Primary prevention is initiated if a stressor is suspected or recognized. The purpose is to lessen the likelihood of encounter with the stressor. Secondary prevention entails interaction with the stressor, and management of the client is started using resources available. Finally, tertiary prevention happens after management of the client has been initiated. The objective in this final stage is to maintain the client at an optimal state of wellness by preventing the stressor from occurring again, or preventing the client from regression (Freese & Lawson, 2010).

The Neuman Systems Model was used to guide the research by incorporating Neuman’s ideas of a client’s interaction with her environment. The women in this study were asked about potential barriers they faced when accessing prenatal care (stressors), and options they felt they had, or wish they had, in order to receive adequate prenatal care (interventions/prevention).

Definitions

During the course of this research, there are several terms that were used as they pertained to the research question. These terms included the following:

1. Adequate prenatal care: initiated during the first trimester of a woman’s pregnancy and should consist of continued assessments of pregnancy risk, pregnancy progress, education, and overall outcome (Beckmann et al., 2000).
2. Low income: the operational definition of low income in this study was being eligible for the Women Infants and Children (WIC) program services.
Eligibility depends on household size and income (Montana Department of Health and Human Services, 2011).

3. Rural: a population density of less than 50,000 people combined and less than 1,000 people per square mile (United States Department of Agriculture, 2008).

Assumptions

There were several assumptions made that preceded the research process. One assumption was that by interviewing low income rural women about barriers they encountered when accessing prenatal care, it was best to use a study design that encouraged this population to explain their responses in detail. It was also assumed that participants’ responses were accurate and honest perspectives about barriers to prenatal care.
CHAPTER 2

LITERATURE REVIEW

Health care quality is measured by its effectiveness in achieving a desired health outcome. For more than two decades, increasing access to prenatal care has been the cornerstone of our nation’s strategy for reducing disparities in infant mortality and low birth weight. (Lu, Kotelchuck, Hogan, Johnson, & Reyes, 2010, p. 200S)

This chapter includes a summary of the research literature that pertains to low income pregnant women and barriers they may encounter while accessing prenatal care in a rural western state. Prenatal care is a paramount objective for delivery of adequate health care in medically underserved populations. This chapter is organized into five different categories: (a) low income, (b) prenatal care, (c) the impact of prenatal care, (d) rural western state, and (e) summary.

Low Income

The literature provides evidence that having a low income is a risk for inadequate prenatal care and leads to poor health outcomes for both women and infants. Schillaci et al. (2010) conducted a study of low and high income women who gave birth in a predominantly rural state. They divided zip codes into areas of high or low income. Birth records from these zip codes indicated when women initiated prenatal care, and it was found that women from low income areas began prenatal care much later in their pregnancies than did women from higher income areas. This resulted in considerably less prenatal visits for the women in the low income bracket (Schillaci et al., 2010). This
particular study did not investigate the significance between the number of prenatal visits and the birth outcomes between higher or lower income women.

In another study conducted by Sunil, Spears, Hook, Castillo, and Torres (2010), low income women seeking prenatal care at public health clinics were surveyed. The investigators found that 60% of 444 women surveyed initiated prenatal care within the first trimester of pregnancy. The majority of women who initiated prenatal care within the first trimester had higher incomes, were married, had higher levels of education, had planned pregnancies, and were enrolled in the Women, Infants, and Children (WIC) supplemental nutrition program. The women also answered a series of questions, and were asked to report how much of a problem each item was during their pregnancies. The item reported as the most problematic was financial barriers to prenatal care (Sunil et al., 2010).

Callister (2000) surveyed low income women about the barriers to accessing prenatal care. These barriers were found to be “lack of transportation, lengthy waiting time for care, the belief that prenatal care was not necessary, fear of caregivers learning of maternal substance abuse, and multiple and confounding social problems” (Callister, 2000, para. 1).

Prenatal Care

A fundamental indicator of a country’s health status is the health of its mothers, infants, and children. Prenatal care is also a critical indicator of birth outcomes (Van Dijk, Anderko, & Stetzer, 2011). Prenatal Care Coordination (PNCC) is a benefit offered
in many states through the federal Medicaid program. The PNCC model of care helps pregnant women access prenatal care as well as obtain education and health information that can help improve pregnancy outcomes for low income women who receive Medicaid. This service also includes the following interventions that are offered to women in an attempt to improve pregnancy outcomes: tobacco and substance cessation programs, education and job training support, and referrals to community programs such as WIC (Van Dijk et al., 2011). In a cross-sectional study conducted by Van Dijk et al. (2011), infants born to women who were covered by Medicaid and received PNCC services were compared to infants born to women who did not receive PNCC. In this study, PNCC was found to be drastically protective against delivering a low birth weight infant, very low birth weight infant, preterm infant, and an infant who required a neonatal intensive care unit (NICU) stay in the hospital. Early intervention with PNCC demonstrated the impact this service had on positive birth outcomes (Van Dijk et al., 2011).

One study published in 2000 focused on two questions: “(1) What barriers do clients who obtain care after 20 weeks gestation identify in accessing early prenatal care?, and (2) Do barriers to use of prenatal care services differ by demographic characteristics?” (Beckman et al., 2000, p. 44). Low income women from rural and urban areas were recruited from health clinics and health departments and surveyed about prenatal care. The investigators found that there were two significant barriers to care: (1) wait time being too long at the provider’s office, and (2) the financial cost of receiving prenatal care (Beckman et al., 2000). Beckman et al. (2000) suggested strategies to
improve what women portray as barriers to accessing prenatal care. These strategies include surveying women at clinics and their provider’s offices, which would help determine what are perceived barriers and find out what is interfering with accessing prenatal care. The investigators also recommended scheduling appointments to fit the women’s needs, making time available for walk-in patients, decreasing waiting room time by cutting out block scheduling, making prenatal care more like one stop shopping where women could access financial aid counselors, Medicaid information, and nutrition information, and finally, scheduling ancillary appointments on the same day as appointments with the providers (Beckman et al., 2000).

A study of migrant farm workers was conducted and found that women in this population encountered many barriers with accessing prenatal care (Bircher 2009). The investigator suggested that nurse practitioners are more cost effective and provide a more family centered approach to care through their education and training, which makes them ideal when caring for pregnant women. “The nursing model includes attention to environmental, social, cultural, familial, and occupational factors in assessment, diagnosis, and plan of care, with an especially strong health education component involved in care delivery” (Bircher, 2009, p. 306).

Lu et al. (2010) conducted a study to identify prenatal disparities, specifically in under-resourced areas. Healthcare disparities were defined as: “the differences or gaps in care experienced by one population compared with another population” (p. 199S). Interviews were conducted with innovators in the improvement of prenatal care. The investigators found several strategies that can help decrease the disparities in prenatal
care in underserved areas. These include using maps to identify geographical locations where there is limited access to prenatal care, using health information technology (HIT), and making available group prenatal care in underserved areas (Lu et al., 2010). The ability to create spatial maps that outline the areas of disparities as they pertain to women’s access to prenatal care and how far they might have to travel to access care is useful to practitioners because of the possibility of creating outreach or satellite clinics (Lu et al., 2010). The investigators also suggested using information technology in the form of text messaging for communication that is fast, easy, and convenient for both client and provider (Lu et al., 2010).

The Impact of Prenatal Care

There is evidence that women from low income regions receive less than adequate prenatal care. Inadequate prenatal care has been found to increase the risk of having a low birth weight infant by one and one-half (Schillaci et al., 2010).

A study conducted by Russell et al. (2007) revealed a total of 4.6 million infants were hospitalized in the United States during 2001. Of these 4.6 million infants, 384,200 of them were hospitalized because of premature birth and/or low birth weight. This total accounted for only 8% of all infants hospitalized, however, it accounted for 47% of the healthcare costs of all infants hospitalized, which totaled 5.8 billion dollars in 2001 alone (Russell et al., 2007). Not only is premature birth the leading cause of infant mortality and childhood morbidity, but premature birth is also associated with neurodevelopment disorders (Russell et al., 2007). There is also a link between preterm birth and low birth
weight with lifelong chronic health problems such as hypertension and dyslipidemia (Russell et al., 2007). The investigators suggested that by preventing preterm birth, major cost savings could ensue. In order to prevent preterm birth, one intervention recommended by the investigators was prevention strategies that are provided during prenatal care, which includes education about smoking cessation, infection prevention, and screening for women who have previously given birth preterm (Russell et al., 2007).

Cogan, Josberger, Gesten, and Roohan (2012) conducted a study to determine whether or not maternal characteristics and prenatal care pattern had an impact on the number of well child visits (WCVs) after delivery. The investigators found that women who received intense, adequate, or intermediate levels of prenatal care had also taken their children to more WCVs. This study suggested an association between adequate prenatal care and a child’s wellbeing by reducing childhood morbidity and mortality, which affects a child’s health throughout their lives (Cogan et al., 2012).

Rural Western State

There are several barriers for both rural residents and rural providers that can prevent effective health care delivery. Some of these barriers include travel and geographical location, restrictions to specialized services, limitations in education and training of professionals, and challenges with confidentiality (Chipp, Johnson, Brems, Warner, & Roberts, 2008). In a study conducted by Chipp et al. (2008) providers from both rural and urban areas were surveyed to determine what adaptations they use to provide effective health care for their patients. The investigators found that providers
from rural regions used integration of community resources more than urban providers in an attempt to provide better care for rural patients. Integrating community resources included using and working with community programs through churches, schools, and law enforcement, consulting elders or leaders in the community about way of life, and participating in community events and providing community level health education (Chipp et al., 2008). Rural providers were also asked about their level of expertise when providing care for their rural patients. The majority of rural providers reported that referring patients to a specialist or more experienced provider out of the community, educating patients about the limits of their expertise, and building a network with other providers for consulting were important aspects of practice that help provide proficient services for their rural patients (Chipp et al., 2008).

In a study conducted in Oregon the relationship between prenatal care in rural areas and the late initiation of prenatal care was explored. Epstein et al. (2009) had two research questions: (1) did women access prenatal care as early as they intended, and (2) were any of the following a barrier to access of prenatal care:

- Inability to get an earlier appointment, lack of money or insurance, failure to recognize pregnancy, lack of transportation, refusal by doctor or health plan to allow an earlier start, lacking Oregon Health Plan or Medicaid card, lack of child care, lack of time, or other. (Epstein et al., 2009, p. 151).

Only 23% of the women reported not accessing prenatal care when they had intended, and no association was found between the additional barriers and rural location (Epstein et al., 2009). Hence, Epstein et al. (2009) found no connection between rural residence and late access of prenatal care. The investigators suggested, however, that providers
need to recognize the barriers that affected the women who reported not accessing prenatal care when intended, and perhaps improving the prenatal care education that women receive in rural settings (Epstein et al., 2009).

Another study examined the perceptions of both providers and women who accessed prenatal care in a rural area. Omar et al. (1998) found that economic barriers were identified by both providers and women, with Medicaid being a large factor. The application process for Medicaid and awareness of eligibility was a complication mentioned by both providers and low income women. The investigators also found that over half of the providers surveyed perceived that rural women did not value prenatal care and had a negative outlook about prenatal care in general. Physician providers also did not think their available office hours during the weekdays were a barrier to accessing prenatal care for rural women.

Satisfaction of rural low income women with the prenatal care they received was the focus of another study conducted by Omar and Schiffman (2000). Satisfaction was based on satisfaction with provider, staff, and prenatal care deliverance. As a whole, women reported being satisfied with the prenatal care they received. Women who used a nurse midwife as a provider, however, reported being more satisfied than those who accessed prenatal care provided by a physician. In addition, two fifths of all women surveyed reported attending less then the number of recommended prenatal visits, with no substantial increase in adverse outcomes (Omar & Schiffman, 2000). Omar and Schiffman (2000) suggested “that there are more cost-effective ways to manage low-risk women” (p. 91). This can be done by “tailoring prenatal care to individual needs,
including a change in the required number of prenatal visits, could be cost-effective without sacrificing quality” (Omar & Schiffman, 2000, p. 94).

Summary

There are many barriers to accessing prenatal care presented in the literature that pertain to both low income women and rural women. There is little data, however, that is specific to the barriers encountered by low income women who access prenatal care in a rural western state.
CHAPTER 3

METHODS

This chapter includes a description of the methods used to address the purpose and research question in this study. This chapter is organized into the following sections: (a) design, (b) population and sample, (c) procedures for data collection, (d) instrumentation, (e) rights of human subjects and consent process, and (f) data management and analysis.

Design

A descriptive qualitative approach was used to discover and understand the barriers that are specific to low income rural women accessing prenatal care. “Facts” obtained in the language of the participants were collected by interviews that displayed a “common dataset” on “pre-selected variables” (Sandelowski, 2000, p. 336). The facts entail a description of what the participants have reported, and the common dataset were the recurring themes that presented throughout the interviews. The pre-selected variables used for this study was a set of pre-structured open ended questions. The common dataset was analyzed in order to summarize the results (Sandelowski, 2000, p. 336).

Using this approach, telephone interviews were conducted with women from the target population and the variables were evaluated for themes that were common in the data reported by the participants (Norwood, 2010). By identifying the themes, barriers to accessing prenatal care that are specific to low income rural women were identified.
Population and Sample

The population of interest in this study was low income rural pregnant women. In order to narrow the target population, given the time and resource limitations for this study, the goal was to obtain a sample of 10 to 12 women from the population of interest, recruited from one rural county in one western state. During the data collection period, the researcher was also contacted by a woman who had given birth within the past 20 months. The researcher contacted the Institutional Review Board (IRB) at Montana State University (MSU) and requested a minor modification to the inclusion criteria in the study. Following the modification, women who were currently pregnant and/or had given birth within the past 20 months were included. After this modification, 1 woman was included who had given birth more than 6 months prior to this study.

The county chosen for this study has 3 towns and a total population of 19,687 people spread out over 3,613 square miles (U.S. Census Bureau, 2011). The majority of residents are between the ages of 18 and 65, and 49.2% of the county’s population are female (U.S. Census Bureau, 2011). This county also has a large percentage of people living below poverty at 20.4%, compared to the entire western state which is 15.0% (U.S. Census Bureau, 2011). With only 5.4 people per square mile and no metropolitan or micropolitan areas, [rural county] is defined as rural (U.S. Census Bureau, 2011).

There is 1 hospital in [rural county] which is located 18.87 miles and 68.6 miles from the 2 other towns in [rural county] (Mapquest, 2011). The closest hospitals to the one in [rural county] are located at 52.15 miles to [small rural town], 89.08 miles to [very large rural town], and 102.57 miles to [large rural town] (Mapquest, 2011).
In an attempt to obtain the sample size needed from the population of interest for this study, the researcher contacted the Women Infants and Children (WIC) program in [rural county]. The WIC program provides nutritional support for low income women who are either pregnant, or have recently given birth and/or are still breastfeeding (Montana Department of Public Health and Human Services, 2006).

**Procedures for Data Collection**

The WIC program director for [rural county] was contacted and the purpose of the study explained. After receiving permission from the program director, the researcher traveled to the WIC office to meet with staff and explain the purpose of the study, place posters in the office (see Appendix A), and personally thank the staff for their assistance in the study. Copies of the poster were made as handouts that were given to employees at the WIC office to hand out to women when they came into the office. The poster and handouts briefly explained: (a) the title and purpose of the research, (b) who was conducting the research, (c) incentive for participation, and (d) the phone number and email address of the researcher for potential participants to contact at their convenience for scheduling the telephone interview.

Data from participants were collected by telephone interview using an interview guide with open ended questions. It was anticipated that telephone interviews would last 30-45 minutes. The interview questions pertained to barriers to accessing prenatal care that these women experienced. A thank you letter (see Appendix B) and gift card incentive of $25 was given for the participants’ time. After the interview was
completed, the researcher asked how this gift card would be best received for the
participant. The participant could chose to give a name and address of where the gift
card could be sent. Another option that was offered was to send the card to the WIC
office with a name of their choosing on a sealed envelope for the participant to pick up at
their convenience.

Instrumentation

A set of open ended questions was developed by the researcher that addressed the
purpose of the study (see Appendix C). The questions were developed based on the
existing literature relevant to barriers to accessing prenatal care. By using open ended
questions, participants had the option to expand on each question and give whatever
information they chose, or felt was important to the study (Norwood, 2010). Open ended
questions allowed the participants to respond in a descriptive manner. Prompts and
additional questions were asked to encourage participants to clarify and expand on their
responses.

Human Subjects and Consent Process

The rights of human subjects were protected in this study by taking three steps:
(a) gained approval from the Institutional Review Board (IRB) at Montana State
University (MSU), (b) informed all participants as to the purpose of the study, and (c)
obtained verbal consent from each participant.
Approval from the IRB at MSU was obtained by submitting an application for review prior to initiation of this study. Approval was received on December 9, 2011. Upon approval from the IRB, the researcher contacted the WIC program in [rural county] and asked permission to place a poster in the office requesting volunteers to participate in this study. The WIC office staff was asked to give copies of the flyer to women when they came into the office.

When women contacted the researcher to participate in the study, the researcher gave an introduction of the title and purpose of the study, and participants were informed that the interview should take approximately 30-45 minutes. At this time participants were informed that the research was to be conducted by telephone interviews with women who volunteered to participate in this study. Each participant was informed that participation was purely voluntary and that they had the right to withhold any information or withdraw from the interview at any time. No personal information was collected. They were informed that the gift card incentive for participating was to be mailed to a name and address of their choosing, or left at their local WIC office in a sealed envelope with a name on it for them to pick up at their convenience. After disclosure of informed consent information, verbal consent for participation was requested.

Data Management and Analysis

Analysis in this qualitative study consisted of identifying themes found in the interviews. Norwood (2010) suggested that analyzing qualitative findings involves classifying data and recognizing the commonalities, as well as the variations within the
classes of data. Themes were identified in the research findings by two processes: (a) the researcher compiled the interview answers and identified patterns, and (b) the patterns were categorized into themes.

During the interviews the researcher documented participants’ answers by hand writing notes on the interview question guide for each individual participant. After the interview, the researcher then promptly entered the notes into a computer. Each interview had a separate individual file that was saved to the computer without any identifying information.

After the gift cards and thank you letters were sent to each participant, the original paper copy with the answers and name and address of where the incentive could be sent were destroyed. Each separate saved computer file was then comprehensively read in order to distinguish common themes. The themes identified were then saved onto a separate computer file. These themes were then analyzed so variables could be summarized in order to address the purpose of the study.
CHAPTER FOUR

RESULTS

The purpose of this study was to explore the barriers to accessing prenatal care that are specific to low income rural women. This chapter contains a summary of the results on: (a) demographics, (b) associated costs of prenatal care, (c) travel and transportation, (d) providers of prenatal care and availability, (e) complications during pregnancy, (f) other reported barriers to accessing prenatal care, and (g) themes.

A total of 6 women participated in this study. A seventh woman contacted the researcher who was interested in participating. When the researcher returned the contact by email and phone, she was informed that this woman had gone into labor and was not able to be reached after that time. Participants were recruited through the WIC program in [rural county]. The researcher contacted the program director and described the study and its purpose. The program director then agreed to meet with the researcher. The researcher drove to one of the WIC office locations in [rural county]. The program director agreed to the researcher hanging posters in all 3 WIC office locations in [rural county]. The director also agreed to distribute individual flyers to every woman who came into any 3 of the WIC office locations. The main WIC office location displayed 4 posters, while the other two locations each had 3 posters. The posters remained in each WIC office, and a total of 70 individual flyers were handed out to women over the 7 week period that data collection was conducted from January through February.
Once a participant made contact with the researcher the purpose of the study was briefly explained. Each participant was also informed that the interviews would take approximately 30-45 minutes, that participation was purely voluntary, and that they may withheld any information they chose, or stop the interview at any time. The actual interviews lasted between 20-55 minutes.

Demographics

All participants were women of childbearing age, residents of [rural county] and eligible for benefits from the WIC program by definition of the WIC program income guidelines. Of the 6 participants, 4 of them resided near [small rural town] and 2 near [very small rural town]. The criterion for participation was women who were currently pregnant and/or had given birth within the past 20 months. All women had children, and only 1 was currently pregnant. Of the 6 women, 2 of them had 1 child each, 1 had 2 children, 1 had 3 children, 1 had 7 children, and 1 had 1 child and was currently pregnant. Ages of the most recent child born to the women ranged from 2 weeks to 20 months old. The woman who was currently pregnant was 11 weeks in gestation and also had a 22 month old child. None of the 6 women interviewed had a primary care provider prior to pregnancy; however, all women initiated prenatal care during their first trimester of pregnancy. Table 1 represents the demographics of this study including medical coverage which is discussed in the next section.
Table 1: Demographics of Study

<table>
<thead>
<tr>
<th></th>
<th>Number of women</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resided near</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small rural town</td>
<td>4</td>
<td>66.67%</td>
</tr>
<tr>
<td>Very small rural town</td>
<td>2</td>
<td>33.33%</td>
</tr>
<tr>
<td>Women of childbearing age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>currently pregnant w/ 1 child</td>
<td>1</td>
<td>16.67%</td>
</tr>
<tr>
<td>1 child</td>
<td>2</td>
<td>33.33%</td>
</tr>
<tr>
<td>2 children</td>
<td>1</td>
<td>16.67%</td>
</tr>
<tr>
<td>3 children</td>
<td>1</td>
<td>16.67%</td>
</tr>
<tr>
<td>7 children</td>
<td>1</td>
<td>16.67%</td>
</tr>
<tr>
<td>Initiation of prenatal care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 weeks</td>
<td>1</td>
<td>16.67%</td>
</tr>
<tr>
<td>5 weeks</td>
<td>2</td>
<td>33.33%</td>
</tr>
<tr>
<td>6 weeks</td>
<td>3</td>
<td>50%</td>
</tr>
<tr>
<td>Medical coverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicaid</td>
<td>5</td>
<td>83.33%</td>
</tr>
<tr>
<td>Other health insurance</td>
<td>1</td>
<td>16.67%</td>
</tr>
</tbody>
</table>

Associated Costs of Prenatal Care

All women interviewed had some form of medical coverage during their pregnancies. Of the 6 women, 5 of them had Medicaid. The women who had Medicaid coverage reported no additional costs for accessing prenatal care. None of these women had to provide any form of co pay for their provider visits, needed lab work, ultrasounds, hospital stay at the time of delivery, or any extra ordered tests if further evaluation during pregnancy was indicated by their provider. One woman said that, “everything was paid for; accessing prenatal care was not a problem at all”. Only 1 of the women who had Medicaid coverage during her pregnancy reported an issue related to cost. She did not
apply for Medicaid until after she found out she was pregnant. She found the application process difficult saying, “it was confusing and took too long to find out if I got it or not”. This same woman also reported that once she had Medicaid, it was retroactive and paid for the prenatal care that she had received prior to having coverage.

The 1 woman who did not have Medicaid coverage reported having health insurance through her husband’s place of employment. She only had to pay a total of $100.00 during her entire pregnancy. This co pay was for her hospital stay during delivery; all other associated costs with accessing prenatal care were covered by her health insurance.

**Travel and Transportation**

Transportation was a recognized barrier to accessing prenatal care for 3 of the 6 women during this study. Of the 4 women who reside near [small rural town], all traveled to this town to receive prenatal care. Travel distance from home to provider ranged from 5 to 30 miles. Of these women, 2 said they had to schedule visits around their husbands’ work schedule in order to have transportation to their provider because of vehicle availability or not having a driver’s license. The 2 women living near [very small rural town] had travel distance between 2 and 10 miles from home to provider. One of these women stated that transportation was an issue for her because their family only had 1 vehicle and there were 9 family members. None of these women reported paying for transportation as an issue.
Both women living near [very small rural town] reported that there were no hospitals or birthing centers near them. They had to drive an hour or more to either [large rural town] or [very large rural town] in order to deliver their babies. For both of these women, this could be an issue if road conditions were bad. One of these women said that “getting to the hospital safe and on time” was what worried her most during her pregnancy. She had a health problem during her pregnancy and had to receive specialized care in advance of delivery to prevent newborn complications. This added requirement caused her to travel to the hospital before her due date so she could be induced and receive the specialized care prior to delivery. This same woman also told a story of her husband’s family. She said her husband’s brother was born in the family car on the way to the hospital because he was the third baby and came faster than the first two. Her father-in-law had to pull the car over to the side of the road so her mother-in-law could deliver. She said this story always made her nervous living in [very small rural town], because “I did not want to deliver my baby on the side of the road in the family car like my mother-in-law”, especially if a complication arose. She also went on to say that “I was relieved when they told me I had to be induced, then I knew I wouldn’t be having the baby in the car”.

**Providers of Prenatal Care and Availability**

One barrier to accessing prenatal care in [rural county] that was reported by the majority of women was a lack of prenatal care providers in their area. Out of the 6 women that participated, 5 of them not only reported a need for more providers, but the
need for a different type of provider where they live. The women in [small rural town] reported that there was only 1 specialized OB physician in the area, 2 family practice physicians, and 2 certified nurse midwives (CNMs) that provided prenatal care. Two of the women in [small rural town] reported, to the best of their knowledge, that the 2 CNMs were only available for appointments “a couple days a week”, and that they traveled from [very large rural town]. None of the women from [small rural town] who were interviewed received their prenatal care from a CNM during their pregnancies; however, 1 woman reported that “If I could have seen a midwife I would have rather gone to her”.

One woman who resides in [small rural town] received her prenatal care from a family practice physician. She said that her “doctor was hard to get in to see. It was hard to get an appointment”. She also said that “half of the women in [small rural town] travel to [very large rural town] for prenatal care because there are more (providers)” and getting an appointment is easier.

Another common finding among the women was that there are no providers that are trained or specialized in caring for high risk pregnancies. If a woman were to have a high risk pregnancy in [small rural town], they would be sent either to [very large rural town] or [closest large city]. A high risk pregnancy in [very small rural town] would be sent to either [large rural town] or [very large rural town]. There were also 3 women who reported a need for a provider who could care for babies who were born preterm or with medical complications. One woman mentioned that “there aren’t the greatest doctors here, no high risk doctors”. Another woman said “if anything happened with the baby we
would have to go to the NICU in [very large rural town] or [closest large city]”. This same woman also went on to say that if a baby was born preterm or needed to go to a NICU for any reason, that “there is one helicopter (in [small rural town]), but it doesn’t operate very much because if we get any weather at all it doesn’t fly”. One of the women from [very small rural town] reported helicopter service in emergencies, but was not sure if it was based out of the same town.

The 2 women from [very small rural town] both reported that there were 2 CNMs that offer prenatal care in their area. Both CNMs were based out of an urgent care clinic in town, and were available 1 day per week to see women. One of these women reported that office hours on this 1 day were limited as well, because the CNMs had to travel in from outside the county. Appointment times were “nothing before 10 AM, and the midwives left early so they could drive back”. She also emphasized that if women wanted other choices besides the CNMs, they had to drive to another town. She mentioned, “You get a midwife. If you don’t want a midwife you have to drive. Or if you have a high risk pregnancy, you have to drive. The midwives don’t deal with high risk pregnancies”.

The other woman interviewed from [very small rural town] mentioned that her last pregnancy was a twin pregnancy, and that she “could not see the midwife”. She had to drive over an hour to [very large rural town]. She also mentioned if there were an emergency or delivery with one of their other patients the CNMs would either be very late or have to cancel appointments that women had scheduled in [very small rural town]. She also said that, “a couple times they did not show up, and this was a problem with
arranging a ride because we only have 1 vehicle. I also had to change plans for child care”.

Of the 6 women interviewed all reported that they would like to have more options to choose from when it came to providers of prenatal care in the areas where they reside. All but 2 women said they would consider receiving their prenatal care from a nurse practitioner if there was one available.

Complications During Pregnancy

The 4 women interviewed who lived near [small rural town] reported that if they experienced a complication or emergency situation during their pregnancies, they knew exactly what to do. All women said they would immediately call their provider or report to the emergency room at the hospital. All 4 women also said that there was always a physician on call at the hospital for prenatal patients.

The 2 women from [very small rural town], however, both reported that in the event of a complication during pregnancy, the only choices that women have is to go to the urgent care clinic in town, call their CNM and wait for a return call, or drive over an hour to the nearest hospital. One woman reported that she had a friend that had complications while she was pregnant. She went into the urgent care clinic in [very small rural town], and the only option she was given was to drive into [large rural town]. She ended up having an ultrasound and more advanced imaging for her complication, but she said that in [very small rural town] “they have no ultrasound machine or any other type of testing except an x-ray machine. If a woman needed an ultrasound for bleeding or
something, they would make you drive to [large rural town]”. She did report that an ultrasound technician would come up with the CNMs, bringing the ultrasound equipment for those women who already had scheduled appointments.

Other Reported Barriers to Accessing Prenatal Care

There were other reported barriers to accessing prenatal care in [rural county] that were reported by a few women. One woman mentioned that “it would be nice to be able to make appointments during the lunch hour. If you work five days a week it’s hard to get time off work in the middle of the day to go to an appointment”, which makes seeing a provider difficult because “they do not make appointments after 5 PM”. She said that being able to make an appointment on her lunch hour would be very helpful and less stressful. She reported that having providers “rotate lunch shifts” so women could make appointments would be “helpful”.

Both women in [very small rural town] reported that it would be beneficial to be able to make appointments with the CNMs on other days of the week, and that the limited amount of hours the CNMs are in [very small rural town] 1 day per week makes it difficult to schedule an appointment. One of these women also stated that wait times in the waiting room averaged an hour and a half each time because the CNMs were so busy with their limited schedule.
Themes

There were 3 common themes that were identified in this study. The common themes are presented as they apply to the Neuman Systems Model which was the theoretical framework used as a guide during this study. The Neuman Systems Model focuses on a living creature’s ability to interact with the environment in which they live, as well as their ability to interact with each other. The Neuman Systems Model also encompasses a wholistic approach for care by using levels of prevention which are best suited to a living creature and the environment in which it lives (Freese & Lawson, 2010). By using this model, themes (stressors) were identified as barriers for a sample of low income rural women. By identifying these barriers, levels of prevention (interventions) currently used among these women have been identified.

Themes Identified as Barriers

Themes were identified for low income rural women of [rural county] as they related to accessing prenatal care. The barriers that presented themselves as recurring themes throughout the research process were: (a) providers of prenatal care and availability, (b) travel and transportation, and (c) complications during pregnancy.

Providers of Prenatal Care and Availability: The barrier that was found to be the most stressful for the women in this study in [rural county] was related to the prenatal care providers that are available. Of the 6 women interviewed, 5 reported a need for more providers. Women reported that the limited number of providers in their areas lead to difficulty with initiating care with a provider and scheduling appointments. One
woman said that a large percentage of women traveled to [very large rural town] for prenatal care because it was easier to initiate care with a provider. Two women also reported that there is a need for a specialized provider for babies born preterm or with complications. Both women in [very small rural town] stated that waiting room time was often 45 to 90 minutes because the CNMs had to travel from out of town and were often over booked with appointments.

**Travel and Transportation:** Women who were interviewed in this study had travel distance between 2 and 30 miles from their homes to their provider’s office. While paying for transportation was not a reported barrier, half of the women had difficulty scheduling transportation to and from their provider. Transportation was a barrier for 3 women because of vehicle availability with their husband’s work schedule, only having 1 family vehicle, and not having a driver’s license. For the 2 women who resided near [very small rural town], travel was a major barrier. These women had to drive over an hour one way to the closest hospital to deliver their babies, or in the event of a complication during pregnancy.

**Complications During Pregnancy:** Complications during pregnancy was not a reported barrier for women that lived within 30 miles of the 1 hospital in [rural county]. These women all reported there was a physician on call at the hospital 24 hours per day specifically for prenatal patients. The hospital also has an emergency room that was equipped to deal with urgent situations. The women that lived an hour or more from the nearest hospital, however, both reported that if a complication during pregnancy were to
occur, this would be a major barrier. For these women, their only option was to report to one of the 2 urgent care clinics nearby. In the event of an emergency during pregnancy they said they would be sent to the nearest hospital which is an hour drive. These women also reported that there is no ultrasound equipment or way to monitor the fetus if bleeding were occurring, unless the complication happened to occur the same day that the CNMs brought the ultrasound equipment with them on their scheduled 1 day per week to the clinic.

Levels of Prevention

Interventions that were currently being used by the women in this study are what helped them deal with barriers encountered while accessing prenatal care in their geographical location, and also what made the outcomes experienced by them either positive or negative. Primary prevention that was recognized was that the women knew that living in a rural area could have consequences if a complication during pregnancy arose, and knowing where to go in this instance was important. Secondary prevention was management of a woman’s current situation, which included women driving to a different town to access prenatal care from a different type or more specialized provider. Finally, tertiary prevention brings the women to an optimal state of wellness after management has already been initiated. In this instance this included women who planned on being induced for delivery, or coordinating prenatal care during a high risk pregnancy in a different town. All levels of prevention that were currently being used or perhaps could have been used for optimal outcomes, helped to achieve stability for the low income rural women who participated in this study.
CHAPTER FIVE

DISCUSSION

The purpose of this study was to explore the barriers to accessing prenatal care that are specific to low income rural women. In this final chapter, the following topics are discussed: (a) summary of the results, (b) limitations to the study, (c) recommendations for future research, (d) implications for practice, and (e) conclusion.

Summary of the Results

The results of this study give outsiders a better picture of what barriers are specific to accessing prenatal care among low income rural women. A descriptive qualitative approach was used by conducting telephone interviews using open-ended questions. Participants were women who resided in [rural county], were either pregnant at the time of the study and/or had given birth within the past 20 months prior to the study, and eligible for benefits from the WIC program by definition of the WIC program income guidelines. A total of 6 women were surveyed about their experiences to accessing prenatal care in their area. The data were collected over a 7 week period from January through February. The common themes that were identified as barriers in this study were providers of prenatal care and availability, travel and transportation, and complications during pregnancy.
Limitations to the Study

There were several limitations in this study that resulted in fewer interviews than the original goal of 10 to 12. The time frame for the study and travel distance to the WIC office locations in [rural county] did not allow for the researcher to travel to and from the WIC offices more than twice in order to actively recruit participants at these sites. Also, only using the 3 WIC office locations for identifying low income women was a restricting factor in recruitment of participants. The 3 WIC office locations also had a limited number of days during each month that they were open, and the main WIC office had moved locations during this study. All of these limiting factors had an impact on the number of interviews that were conducted, which represented a small percentage of women who may have been eligible for this study. With a larger sample size, different barriers to accessing prenatal care in low income rural women may have been identified. Another limitation was the possibility of recall bias due to the 1 woman who gave birth up to 20 months prior to this study, making it difficult to remember details during her pregnancy. Self-selection bias is another possible limitation where women who volunteered for this study may have selected themselves to participate based on the information they felt they had to provide versus women who did not participate. Lastly, surveying only low income women from one rural county in one western state was a limitation. Women from other geographical locations may have different reported barriers to accessing prenatal care.
Recommendations for Future Research

This study suggested barriers specific to low income rural women accessing prenatal care in one rural area. Additional research needs to be conducted in other rural areas of the United States and with larger samples of women in order to get a clearer picture of what barriers this population encounters. Identifying barriers that are specific to low income rural women wherever they happen to live can help maintain pregnant women at a state of optimal health throughout their pregnancies, improve the outcomes for infants, and ultimately improve the overall health and wellbeing of our future population.

Future research also needs to be tailored towards health care providers in rural areas. The major identified barrier to accessing prenatal care in this study was a lack of providers in general, and a lack of a variety of providers in these rural areas. Additional research that can be readily available to update the general public’s understanding of the current demand and the barriers experienced by healthcare providers who offer prenatal care is important to educate consumers.

Lastly, another subject that could be studied is group prenatal care for low income rural women. This type of prenatal care is typically offered to low income women in bigger towns and cities, and is associated with better birth outcomes (Norris, 2011). This type of group care may be beneficial to low income rural women in geographical locations like the rural county in this study, but further evaluation is needed pertaining to the number of women who may use these services.
Implications for Practice

There are many implications for practice suggested by this study of prenatal care for low income rural women. Living in sparsely populated regions that may have a high percentage of residents living in poverty, like the county in this study, makes it difficult to recruit providers who do not receive enough reimbursement to justify opening a practice in these rural areas. With healthcare reform, rural providers could lobby together for better reimbursement for providing care in underserved areas and receiving incentives for using health information technology at a distance in consultation with specialized providers in larger areas.

Based on the findings of this study, one implication for providing prenatal care to low income rural women is to educate this population about the implications of living in rural areas with limited specialized providers. Community level education about the services provided in the community and surrounding areas is important so residents can be aware of their community resources and options for more specialized care. Providers in rural areas could provide community wide education about warning signs and complications during pregnancy, and what women should do in these situations. Education and information about Medicaid and children’s health insurance programs (CHIPS) could also be provided at community pregnancy education events in an attempt to reduce the disparity of care during the perinatal period and beyond.

A cost effective implication for practice is recruiting nurse practitioners who have specialized education and training in prenatal care to rural areas. These trained providers could offer routine prenatal care to low income rural women who do not have high risk
pregnancies, and do so through an obstetric and gynecologic physician that is based out of a practice in the nearest larger town or city. With this coordination of care, women would be prepared to deliver with the consulting obstetric physician at the nearest hospital or birthing center.

Incorporating health information technology (HIT) into rural clinics could be extremely useful in rural locations. With the use of HIT, providers in rural urgent care clinics could access a pregnant woman’s medical records wherever they are located as well as information that would help give rural providers guidance in providing care during a complication until that woman could be transported or stabilized.

Investing in rural communities is important for both patients and providers. If there are several providers who offer prenatal care in rural areas who travel to these locations to see patients, they could collaborate and create a schedule amongst each other that would offer more availability to women. This would decrease the work load on the individual providers, and still create more availability. Another way to invest in rural communities would be to educate and train the providers who already practice in the area to broaden their expertise so prenatal care can be offered to women. If the providers available in rural areas are trained to offer this service, then specialized equipment such as ultrasound and fetal doppler can be brought into rural clinics so women have more services available to them and travel outside the community is reduced. These interventions would help to strengthen rural communities.
Conclusion

It is well documented that rural women with limited incomes have more challenges in their ability to access adequate prenatal care during their pregnancies compared to their urban counterparts. This is largely due to the barriers of accessing prenatal care in rural areas that women encounter (Epstein et al., 2009). In this study low income rural women were surveyed about the barriers encountered to accessing prenatal care in a western state. The three most common themes identified were (a) the providers of prenatal care and their availability, (b) travel and transportation, and (c) complications during pregnancy. The results of this study and implications for research and practice can be used by future researchers, providers in rural areas, and policy makers to improve access to prenatal care.
REFERENCES CITED


APPENDICES
APPENDIX A

RECRUITMENT POSTER
Montana State University
College of Nursing

Access to Prenatal Care Among Rural Women

Please take part in a graduate nursing student’s research study about barriers to obtaining prenatal care in the area where you live. The study involves a short telephone interview scheduled at your convenience. Participants will receive a $25 gift card for their time. Please contact the graduate nursing student below:

Laci Burk
(XXX) XXX-XXXX
laci.burk@nsu.montana.edu
APPENDIX B

PARTICIPANT THANK YOU LETTER
February 22, 2012

Jane Doe
123 1st Street
[small rural town], MT 12345

Dear Jane,

I want to thank you very much for your time participating in the research about access to prenatal care in rural women. Your input is very valuable and much appreciated. Thank you!

Sincerely,

Laci Burk, RN, MSU graduate student
1. How far along in your pregnancy were you when you found out you were pregnant?
   • What week?

2. Can you tell me about when you first went to see a healthcare provider for your pregnancy?
   • How far along were you?
   • Did you have to travel outside of your community to see a provider?
   • How far did you have to travel?

3. If you started prenatal care after the first 13 weeks of your pregnancy, can you tell me why?
   • Was the cost of prenatal care a problem? Do you have health insurance or Medicaid, and did you find this helpful for paying for prenatal care?
   • Was transportation to and from appointments a problem? If so, how?
   • Did you feel uncomfortable with your provider? If so, in what ways?
   • Did you plan your pregnancy or was it unintended? Did this effect when you started seeing a provider for your pregnancy?

4. Were there any other problems or inconveniences with getting prenatal care?

5. What is the biggest problem about getting prenatal care where you live?
   • Is arranging transportation to and from the provider a problem?
   • Is paying for transportation a problem?
   • Is paying for prenatal care a problem?
   • If you have health insurance or Medicaid, do you find it difficult to pay for a co-pay and/or deductible?
   • Do you have other children that you have difficulty finding childcare for when you go to see your provider?
   • Do you find that there is a lack of providers in the area you live?
   • What types of providers do you know of in your area? (doctors, nurse practitioners, or nurse midwives)
   • Do you feel as though you do not care for the providers in your area?
   • Do you find the waiting time in the waiting room of your provider is a problem at your visits?

6. When you think about getting prenatal care in the area where you live, what worries you the most?
7. What options do you have in your area for getting prenatal care?
   • Do you wish there were different types of providers in your area, such as nurse practitioners or nurse midwives?
   • Are there hospitals and/or birthing centers in your area?

8. Did you see a regular provider before you found out you were pregnant?
   • If so, what type of provider? (doctor, physician assistant, nurse practitioner)
   • If you have a regular provider, where are they located? In your town or another town?
   • If they are in another town, how far do you have to travel to see them?

9. What type of healthcare provider would you prefer to see during your pregnancy?
   • Family doctor, OB/GYN doctor, nurse practitioner, or nurse midwife?
   • Can you tell me why you prefer to see that type of provider during your pregnancy?

10. Would you ever consider receiving prenatal care from a nurse practitioner or certified nurse midwife?

11. When you see a healthcare provider for any problem, can you tell me what is the most important to you during the visit?
    • Personality of the provider, gender of the provider?
    • Length of time you are visiting with your provider?

12. Are you satisfied with the care you get from your provider?
    • Do you trust and like your provider?

13. Does your prenatal care provider make you feel as though you and your baby are getting good care?
    • Do you trust your provider and feel safe?

14. Do you feel that the provider you see/saw during your pregnancy has office hours that meet your needs?
    • If not, is it because you live in a different area than where your provider is located?
    • What do you feel would be more convenient?

15. If you had a problem during your pregnancy that you thought was an emergency, where would you go for help?
    • Were you able to go the provider during office hours or have the ability to call them?
• Did you have a hospital? If not, where is the closest hospital to you and how long does it take to get there?
• How would you get to the provider or hospital during an emergency?

16. How far in terms of distance and travel time is your prenatal care provider from where you live?

17. Is there anything else you would like to share with me about your pregnancy and prenatal care experience that I have not asked about?