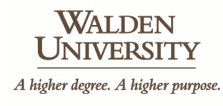

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College of Health Sciences

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Ann Eneh

has been found to be complete and satisfactory in all respects,
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Walden University
2018

Abstract

Access to Primary Care in Pennsylvanian Rural Townships

by

Ann Ogorchukwu Eneh

MS, New York University, 2012

BS, Obafemi Awolowo University, 1999

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health

Walden University

April 2018

Abstract

Access to primary care is limited in rural communities across the United States. Evidence supports primary care as the cornerstone of healthcare. The purpose of this project was to explore community perceptions of barriers to primary care access with the aim of learning about ideas for possible interventions that could improve primary care access for Mifflin County residents. Penchansky and Thomas's model of healthcare access provided the theoretical framework for this qualitative phenomenological study. Using a community-based research approach, semistructured, open-ended telephone interviews and qualitative surveys were conducted with 26 participants, including physicians, nurses, and residents. Data were analyzed using Edward and Welch's extension of Colaizzi's 7-step method for qualitative data analysis. Key findings included perceptions that (a) primary care access is limited in Mifflin County due to inadequate health services emanating from insufficient community health centers, provider shortages, health insurance issues; (b) high cost and poor choice of services discourage residents from seeking preventative care; (c) distance from services reduce residents' ability to access primary care; (d) service problems impact the quality of care received, such as a lack of provider training in opiate addiction; and (e) providers and residents should be involved in primary care service planning since they can provide valuable information to help improve access to services. Positive social change could occur through improvement in access to primary care using a collaborative approach and community involvement, in policy formation and service planning.

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April 2018

Dedication

I dedicate this project to God Almighty for nourishing and sustaining me spiritually, emotionally and physically throughout this dissertation journey.

I dedicate this research study to my family whose love, warmth and sense of humor reminded me to laugh, do my best and leave the rest to God. I thank them for their love, support and prayers throughout this journey, especially my husband Dr. Kennedy Eneh for his financial support and love, my daughter Emmanuela Eneh for always cheering me on that I can do this. Her tenacity gave me the audacity I needed to forge ahead and complete this study.

I dedicate this research to my sisters, Rossy, Laety, Yvonne, and Ethel who through their prayers released abundant graces that strengthened me. My late father Robert Obodomechune Ojeah who taught me early on never to procrastinate and get the job done. My late mother Caroline Obiageli Ojeah, who gave me the foundational tools I needed to excel in my chosen carrier in the healthcare industry. This one is for you, Mom! My late brother Maurice Nwanneamaka Ojeah who showed me the virtues of spirituality early on in life.

I thank all my friends (especially E-good) who supported and encouraged me to shoot for the stars and never look back. I want to especially dedicate this work to Teresa King, a dear friend who went out of her way to assist me in this research. Teresa, you reminded me that there are still some good people in this life. Thank you from the bottom of my heart.

Finally, I dedicate this work to Mifflin County community and all those who have suffered the effects of lack of primary care access and pray that someday this issue will be nothing but a distant memory.

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I thank God Almighty who made it possible for me to be able to withstand this arduous dissertation journey.

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I thank the Mifflin County communities for their participation and all research partners, the Board of Supervisors and Borough Council Members in selected Mifflin County townships/boroughs for their assistance in this research.

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Chapter 1: Introduction to the Study

One of the most persistent challenges to the American healthcare system is lack of access to affordable primary care (National Association of Community Health Centers, 2009). Contributing factors to this issue include low income, lack of insurance or resources, population sociodemographic features, primary care model challenges (including physician and nurse shortages), and failure to integrate community input by healthcare administrators (Centre for Community-Based Research, 2011; National Association of Community Health Centers, 2009; Salimi et al., 2012; Simonds, Wallerstein, Duran, & Villegas, 2013). Not only is primary care access worsening in America, the number of disenfranchised populations has grown three times faster than the general population and is now extending to middle class families (National Association of Community Health Centers, 2009). Having insurance does not guarantee access to care because the number of primary care providers in rural areas continues to dwindle nationally (Doescher, Skillman, & Rosenblatt, 2009; Tobler, 2010). In the United States, as much as 77% of the 2,050 rural counties are primary care health professional shortage areas (Doescher et al., 2009). Though one-fourth of Americans reside in rural areas, only 10% of physicians and 18% of nurse practitioners (NP) practice in these areas nationally (National Rural Health Association, 2013).

A major investment in primary care is essential not only for removing barriers to needed care, but also for improving health outcomes, minimizing health disparities, and achieving cost savings (National Association of Community Health Centers, 2009). The U.S. healthcare system could realize $67 billion in annual savings if everyone made

appropriate use of primary care (National Association of Community Health Centers, 2009). Further, there is compelling evidence that the strength of the primary care system in a region or country predicts the health status of the population (Beasley et al., 2007), which suggests that the primary healthcare system is a foundation of American health. Community-based Research (CBR) is considered important in primary healthcare development, and there is some evidence to suggest that it is directly associated with positive health outcomes (Centre for Community-Based Research, 2011; Preston, Waugh, Larkins, & Taylor, 2010). CBR in primary care is essential to ensuring that primary care teams work with the community to meet their health needs.

Problem Statement

Residents in Central Pennsylvania lack access to healthcare and face disparities in health (Kaiser Family Foundation, 2016). Many contributing factors to this public health issue include sociodemographic features of the population, primary care model challenges, inadequate or lack of resources, and failure by health care systems to incorporate community input in planning and implementing services (Centre for Community-Based Research, 2011; Salimi et al., 2012; Simonds et al., 2013). Few studies exist on community input to primary health care planning, and less engaged communities tend to experience poorer health (Bell, 2012). There is significant demand for CBR and much of it is not being met (Sclove, Scammell, & Holland, 1998).

The Pennsylvania Department of Health (2012) has reported that individuals living in rural communities have higher rates for cancer, obesity, heart disease, and diabetes, and that children and nonelderly adults living in rural communities are also

more likely to be uninsured. In Mifflin County, Pennsylvania, where my study was conducted, six distinct townships (Bratton, Brown, Menno, Oliver, Union, Wayne) and three boroughs (Kistler, McVeytown, and Newton Hamilton) qualify as medically underserved areas (Lewistown Hospital, Mifflin Juniata County Human Services Department, Penn State Extension, United Way of Mifflin-Juniata, 2013). These townships and boroughs score poorly on all four components of indices of medical underservice: “percentage of the population below poverty, percentage of the population that is elderly, infant mortality rate and availability of primary care physicians” (Lewistown Hospital et al., 2013, p. 2). Mifflin County also has underlying sociodemographic characteristics that impact many health indicators such as many people with no insurance or inadequate health insurance, graying of the population, and an increased number of people living below poverty level (Lewistown Hospital et al., 2013).

It is a tenet of primary health care that problems with access to adequate care be addressed in partnership with the affected community. This was a critical component of the United Nations Declaration on Primary Care in Alma Ata, USSR in 1978. Here it was agreed by all nations that individuals have a right and duty to take part in their healthcare planning and implementation both individually and collectively (Bell, 2012; World Health Organization, 1978, 2015a). Given the public’s repeated experiences of access to health care in their community, their participation would be invaluable in assessing knowledge of what is working and what is not in primary healthcare and providing ideas on how to overcome barriers (Bell, 2012). The goal of CBR is to foster sustainable efforts at the local level to facilitate improved health for all (National Institute of Health, 2013).

The Purpose of the Study

The purpose of this qualitative phenomenological study was to explore community resident and healthcare provider perceptions of barriers to primary care access with the aim of learning about ideas for possible interventions that could improve primary care services for county residents. This problem is worthy of study because when community members become proactive in defining issues of concern to them and in taking action to achieve change, health outcomes tend to improve (Centre for Community-Based Research, 2011; Preston et al., 2010; World Health Organization, 1992).

Conceptual Framework

This study's theoretical framework was grounded in Penchansky and Thomas's (1981) model of healthcare access. The five dimensions of availability, accessibility, accommodation, affordability and acceptability in this model helped me understand the barriers to adequate primary care access in Mifflin County to explore and present suggestions for improving primary care access. Penchansky and Thomas's theoretical work has been used by Tucker and Tucker (1985) and Fradgley, Paul, and Bryant (2015), to increase access to health services.

Nature of the Study

This research was a qualitative phenomenological study of primary care access and use from the perspectives of Mifflin County health professionals and residents. Phenomenologists are concerned with understanding social and psychological phenomena through the perspectives of people involved (Creswell, 2007; Englander,

2012). I recruited individuals through purposive sampling based on the knowledge of the population and the purpose of the study. The driving premise was that primary care access for county residents can be improved through the use of CBR (Centre for Community-Based Research, 2011).

The design for this study encompassed a mailed qualitative survey with open-ended questions and in-depth telephone interviews. Out of 26 respondents who participated in the study, 10 were interviewed, 16 completed and returned the qualitative surveys, and only three completed both the interviews and survey. I chose these methods because the populations of interest are dispersed over a geographic range, making it difficult to feasibly conduct a face-to-face interview or focus groups. Open-ended questions can evoke responses that are meaningful and culturally salient to the participant (Mack et al., 2011). The survey responses as well as the in-depth telephone interviews helped assess community members' and health care provider's beliefs, knowledge, and attitudes about primary care access. They also helped to identify social norms and determine community priorities and learn about ideas for possible interventions. Data were analyzed using Edward and Welch's (2011) phenomenological method, which is an extension of Colazzi's (1978) 7-step method of phenomenological enquiry to enhance in-depth descriptions of phenomena under study. NVivo software was used to organize and code data for emergent themes that could be used to offer recommendations for research and future practice.

Research Questions

RQ1: What are the perceptions of healthcare providers regarding community members' access to and use of primary care services in Mifflin County?

RQ2: What are the perceptions of residents regarding access to and use of primary care services in Mifflin County?

RQ3: What are the perceptions of residents and healthcare providers on how access to and use of primary care services might be increased in Mifflin County?

RQ4: What are the perceptions of residents and healthcare providers regarding community-based research as a means of improving access to and use of primary care services among rural residents?

Definition of Terms

Access: According to Penchansky and Thomas's (1981) model of healthcare access, "access" is a set of five dimensions that describe the fit between the patient/client and the health care system—availability, accessibility, accommodation, affordability and acceptability.

Community-based research (CBR): Provides professional researchers with a tremendous opportunity to use their skills to solve community problems, and to learn from community members how their expertise can be used to effect change (Chopyak, 2016).

Healthcare providers: Person(s) who coordinate, plan, supervise and direct health care delivery (United States Bureau of Labor and Statistics, 2012).

Health system: Health system delivers quality services to all people, when and where they need them (World Health Organization, 2015b).

Nurse: Someone who is trained to look after ill or injured people, usually in a hospital (Macmillan Dictionary, 2015). For the purpose of this study, a nurse is a licensed professional healthcare provider responsible for providing direct care services to patients/clients in the hospital and community health center.

Physician: A doctor or a person who has been educated, trained, and licensed to practice the art and science of medicine (Medical Dictionary, 2015). For the purpose of this study, a physician is a medical doctor, licensed to practice medicine.

Primary healthcare: Essential healthcare made accessible at a cost a country and community can afford, with methods that are practical, scientifically sound and socially acceptable (World Health Organization, 1978). There are three levels of care in primary healthcare. These are primary, secondary, and tertiary health care. The focus of healthcare at the primary level is prevention of disease; at the secondary level it is disease intervention and limitation of disease; the tertiary level of healthcare focuses on treatment to reduce complications, and rehabilitation (Cohen, Chavez, & Chehimi, 2007). Healthcare at the primary level will be the focus of this study.

Primary care: The first contact with a healthcare professional in a given episode of illness that leads to a decision regarding a course of action to resolve the health problem (Mosby's Medical Dictionary, 2009).

Primary care services: The sector of the healthcare system in which general practitioners, community nurses, and other healthcare professionals provide a first point of contact for patients (Segen's Medical Dictionary, 2012).

Resident: All individuals who are 18 years and above and reside and are employed in and use Mifflin County primary care services.

Assumptions and Limitations

Assumptions

Without assumptions, a researcher cannot demonstrate the importance of a study (Corbin & Strauss, 2007). In this study, I assumed that identifying issues to primary care access in Mifflin County is the first step toward finding solutions that would improve primary care services in this community. Hence, deliberate actions were made regarding the topic I chose to study and the participants I chose to include in the study. I acknowledged that there were limitations associated with these assumptions regarding primary care access, because measuring qualitative outcomes through the five dimensions of accessibility, availability, acceptability, accommodation, and affordability may not show all conditions in Mifflin County. However, data generated from this research can be useful in developing a better understanding of these conditions. I assumed that this research could identify and confirm issues that prevent residents from seeking health care in Mifflin County and elucidate ways to solve them. I assumed that participant responses would be honest and that participants would respond willingly and participate to the best of their abilities throughout the duration of the study.

I also assumed that participant responses would be dependent on their ability to recall on lived experiences of the phenomenon due to time factor, participant memory, and the influences of time factor on participant ability to reflect on past experiences. I assumed that study findings could reflect conditions that impact residents' access to primary care services and provide useful data for developing a ground-up model of healthcare based on the expressed needs specific to Mifflin County residents. Additionally, I assumed that these data could be relevant to healthcare providers practicing in the area.

Limitations

I acknowledged that there were limitations in my assumptions because the small sample size that was used to collect data and results may not be generalizable to other populations. However, this study could serve as a first step to better understand conditions related to residents' healthcare access issues and provide valuable information that could be used for the development of a healthcare delivery model that meets the needs of Mifflin County residents. Finally, this study can offer recommendations for practice and further research on the topic.

Scope and Delimitations

This scope of this study comprised both residents' and healthcare provider's perceptions of primary care access by Mifflin County residents as well as the capacity of CBR to improve their use of health services provided. This study was delimited to three groups: licensed primary care providers (physicians and nurses) with no less than 5 years of work experience in the community being studied as well as residents who have lived in

Mifflin County for 5 years and have never been employed as physicians or nurses. All study participants were adults, 18 years and above capable of giving consent to participate fully in the study. Exclusions were not made on any potential participant based on gender or race.

Significance of the Study

Evidence has shown that individuals who obtain regular primary care not only receive more preventive services but also are more likely to comply with treatment regimens have lower rates of illness and premature death (Starfield, Shi, & Macinko, 2005; Healthy People 2020, 2015). Though primary care is the foundation for strong healthcare systems, it has long been overlooked in the United States (Shi, 2012). Approximately 50 million people live in rural America (National Association of Community Health Centers, 2011), yet there are shortages of primary care physicians (PCPs) and specialists in rural areas (Association of American Medical Colleges, 2012). The United States in 2010 invested as much as $250 million from the Public Health Fund in primary care professional training and the Affordable Care Act’s Prevention (Agency for Healthcare Research and Quality, 2014). However, the United States lags in the performance of its healthcare system and in maintaining population health due to many years of decline in primary care (Sandy, Thomas, Pawlson, & Starfield, 2009). Further, rural residents are more likely to be elderly, poor, and have chronic medical conditions compared to residents of metropolitan areas (National Association of Community Health Centres, 2011). Annually, seven out of 10 mortalities among United States residents come from chronic illnesses, 50% of which is accounted for by cancer, stroke and heart

disease (Centers for Disease Control and Prevention, 2015). CBR supports positive social change (Centre for Community-Based Research, 2011), hence, the results of this study could provide ideas for possible interventions to improve primary care access in Mifflin County. By studying the conditions affecting community access to health care services in Mifflin County, local health departments, practitioners of private practice, as well as health care administrators can use data generated to develop a ground-up model of health care that satisfies the described needs of Mifflin County residents. Further, data from this study could also provide variables for a quantitative study (baseline and follow-up) to aid further research on primary care access. Finally, this study can add to existing knowledge that CBR can generate pertinent information to support social change by illuminating the expressed needs of community members to increase access to primary care.

Social Change Implications

According to Schutt (n.d.), promoting social welfare that would serve people requires changing activities in social structure. The interest to conduct this study stemmed from a desire to uncover the issues and challenges faced by Mifflin County residents regarding primary care access and to identify ways to address them. Understanding this phenomenon from the perspectives of community members in Mifflin County townships and boroughs can help to inform both local and state authorities about the need to improve community participation in decisions affecting their health and in implementing healthcare services to improve health outcomes. Further, the results of my study can provide ideas for possible interventions to improve primary care access in Mifflin County. Data from this study could provide variables for a quantitative study

(baseline and follow-up) to aid further research on primary care access as well as help to develop a ground up model of healthcare to satisfy the expressed needs of Mifflin County residents. Finally, information garnered from this study can also add to the body of knowledge that CBR can generate important information to support social change by effecting policy and practice changes to benefit county residents (Centre for Community-Based Research, 2011).

Summary

As many as 1.3 billion people lack access to effective and affordable healthcare and low- and middle-income countries bear 93% of the world's disease burden. Though the United States is known for providing individuals with health care services that are exemplary, international comparisons on key public health indicators highlight that poorer health outcomes are noted more in the United States than in any other industrialized nation. A top priority in the United States, therefore, is to improve healthcare accessibility to achieve health equity and increase the quality of life years for all. In Mifflin County where little is known from the consumers' perspective about factors limiting primary care access, this study can fill this gap in information that could give ideas for possible intervention to improve access to primary care services not only in Mifflin County but also in other specific population groups. The five dimensions of availability, accessibility, accommodation, affordability, and acceptability elicited by Penchansky and Thomas's (1981) healthcare model were useful in addressing the survey and interview questions, thus helping to understand the barriers to primary care access in this county.

CBR provides opportunities for implementing a community-oriented system of delivery of healthcare that improves healthcare access and use of services provided. Limited research has been conducted in this community, so gathering firsthand data through in-depth telephone interviews and survey allowed people's lived experiences of the phenomenon to gradually emerge and ultimately bring about possible solutions to identified problems. This was therefore an appropriate step in obtaining valuable information in this study. Data were analyzed using Edward and Welch's (2011) phenomenological method which is an extension of Colazzi's (1978) 7-step method of phenomenological enquiry to enhance in-depth descriptions of phenomenon under study. NVivo software was used to organize and code data for emergent themes. In Chapter 2, literature is reviewed on the evolution and importance of primary healthcare in the United States, and in Chapter 3 I discuss the methodology used and procedures for analysis of data.

Chapter 2: Literature Review

Introduction

There is a lack of access to primary care for many Central Pennsylvanian residents, which often results in excess morbidity and mortality from preventable causes (Kaiser Family Foundation, 2016). Many factors contribute to this problem in primary healthcare including low income levels, an aging population, a shortage of doctors and nurses, and a failure of the healthcare system to incorporate community input into planning and implementing services (Neuwelt, 2012). The focus of this study was to explore residents' and healthcare providers' perceptions regarding resident's primary care access in Mifflin County and to engage in CBR as a potential tool for change to promote rural dwellers' access to primary care services.

Chapter 2 is grouped into five major parts. First, I discuss the conceptual framework. Second, I present related literature on healthcare conditions in America to illustrate the United States' healthcare crisis and emphasize this study's importance. Third, I discuss primary healthcare importance to the health of a population and give a brief history of Mifflin County. Fourth, I discuss healthcare access barriers and the role of CBR in promoting access to healthcare. Finally, I discuss literature relating to study methodology.

I reviewed applicable literature as part of the exploration into perceptions of primary care access in Mifflin County. I searched scholarly databases via Academic Search Complete, Health Science Research, Education Resources Information Center (ERIC), Science Direct and gathered information from scholarly journal articles, reports,

books and factsheets from private and state organizations. Primarily, I selected literature based on relevance to the topic and publication dates (2005–2015). When I included publications before 2005, it was because they either contributed to the conditions prompting this study or embodied the field of study. Search terms included *primary healthcare, primary care, access to primary care, health disparity, barriers to primary care, achievements of primary healthcare, community-based research, community input, rural health, and healthcare perceptions.*

Conceptual Framework: A Model of Health Care Access

Good health is so essential to a good life that people demand access to services that would maintain it (Savedoff, 2009). Access is one of the most frequently used words in discussions of the healthcare system. It is also an important concept in healthcare policy and health services research, yet it is often not defined or employed precisely (Clark & Coffee, 2011). To some, access refers to the entry into or use of the healthcare system, while to others it characterizes factors influencing entry or use (Clark & Coffee, 2011). Penchansky and Thomas (1981) defined access as a general concept that summarizes a set of more specific dimensions describing the fit between the patient and the healthcare system. These specific areas were availability, accessibility, accommodation, affordability, and acceptability.

Availability refers to the relationship of the volume and type of existing services and resources to the clients' volume and types of needs (Penchansky & Thomas, 1981). According to Savedoff (2009), availability considers the supply of healthcare services in terms of the amount and quality relative to the population's needs. Cham, Sundby, and

Vangen (2005) also stated that availability measures the extent to which population health needs are met by available services.

Accessibility refers to the relationship between client and supply locations while considering client's travel time, transportation resources, and distance as well as cost (Penchansky & Thomas, 1981, p. 128). In other words, accessibility addresses the spatial distribution of services relative to the population and its needs (Savedoff, 2009). Access to health care services can be defined in many ways. Clark and Coffee (2011) argued that accessibility can be defined as "the ease of approach from one location to another measured in terms of distance travelled, the cost of travel, or the time taken (p. 3)." This concept is at the heart of geographic model of access, the underlying principle of which is the impact that distance plays in assisting or hampering access to goods and services—in this case, access to healthcare services (Clark & Coffee, 2011). Some definitions are focused on whether people are using services—use serving as a proxy for access while others focus on health insurance coverage or eligibility to receive healthcare services if a person were to fall ill (Savedoff, 2009). Other definitions are focused on the probability that someone can get a healthcare service when they need it while others focus on the individual's perception of whether they can get the services they want or not (Savedoff, 2009).

Accommodation refers to the "relationship by which the supply resources (walk-in facilities, appointment systems, telephone services, hours of operation) are organized to accept clients and clients' ability to accommodate to these factors and his/her perception of their appropriateness" (Penchansky & Thomas, 1981, p. 128). When

services provided are not designed to reflect people's culture, they cease to seek or continue to use the health care system (Penchansky & Thomas, 1981). Savedoff (2009), in agreement with the above statement, reported that access may be limited when health care services are provided in a way that conflicts with popular beliefs, religion, or social norms.

Affordability refers to clients' ability to pay for health services using existing health insurance when needed or the relationship of provider's insurance to prices of services (Penchansky & Thomas, 1981). The clients' perceptions of worth relative to total cost is a concern as is their knowledge of prices, total cost, and possible credit arrangements (Penchansky & Thomas, 1981, p. 128). According to Savedoff (2009), affordability addresses the financial factors that can facilitate or obstruct getting necessary health care services.

Acceptability refers to the link between clients' attitudes about a provider's personal features and provider's attitudes toward clients' personal features regarding what is acceptable (Penchansky & Thomas, 1981). Providers may have attitudes about the preferred attributes of clients or their financing mechanisms and either may be unwilling to serve certain types of clients (e.g., welfare patients) or, through accommodation, may make themselves available (Penchansky & Thomas, 1981, p. 129). Acceptability addresses whether available healthcare services are appropriate to the norms, expectations, and cultural behaviors of the population (Savedoff, 2009).

Researchers have applied Penchansky and Thomas's (1981) healthcare model of access as a means of measuring the impact of healthcare access on health outcomes. For

example, Fradgley, Paul, and Bryant (2015) used this model to increase equity in access to high-quality health services. Bourke (2006) used Penchansky and Thomas's healthcare model of access to explore the perspectives of consumers on healthcare access. I discuss the details of these studies in the barriers to healthcare access section of this chapter.

The Importance of Primary Healthcare

Though many professionals in the healthcare industry as well as public health advocates affirm that boosting supplies in primary care achieves better health outcomes and lowers healthcare costs, the U.S. healthcare system is yet to achieve the "triple aim" that comes from improving the personal experience of healthcare interactions that improve population-based health outcomes and containing cost (Berwick, Nolan, & Washington, 2008; Rhode Island Department of Health, 2012). At the heart of every effective healthcare delivery system is the convenience and timeliness of primary care access. Not only does primary care provide patients with the community-based care that they need, but it also creates opportunities for team members to provide preventive health services, educate individuals and communities about chronic disease, conduct population-based research, and help reduce healthcare disparities (Rhode Island Department of Health, 2012).

Healthcare disparities have long existed in the American healthcare system for as long as population-based health outcomes have been measured (Rhode Island Department of Health, 2012). Six overarching primary care domains might help to understand the impact of primary health outcomes and cost containment from the summation of a number of components and attributes such as (a) primary care supply, (b) available

primary care supply actual use rate per patient, (c) primary care practice architecture, (d) extended access, (e) population-based quality management, and (f) electronic health records (Rhode Island Department of Health, 2012). The Medicare population should benefit mostly from comprehensive primary care access that is better than those earlier in life because it incurs more cost than any other coverage group and uses more services (Rhode Island Department of Health, 2012).

Researchers have examined the link between primary care supply, healthcare costs, healthcare quality, population-based health outcomes, and population health disparities based on race or income. For example, Chernow, Sabik, Chandra and Newhouse (2009) examined the relationship between primary care supply and health care spending growth. Analysis of Medicare Part A and Part B costs per person for each of 306 Hospital Referral Regions in the United States between 1995 and 2005 showcased that regions with higher primary care supplies had lower Medicare costs increases per beneficiary (Chernow et al., 2009). Areas with (10%) more PCPs in the physician workforce were associated with a (1.8%) higher rate of spending growth than the baseline areas over the study period (Chernow et al., 2009). Rutherford et al. (2010) systematically reviewed, using Penchansky and Thomas's (1981) model of framework, the impact of access on mortality for sub-Saharan African 5-year-olds. The authors proposed that issues about access were so much more than cost and distance alone and asserted that these multidimensional factors could be evaluated by studying the environment comprehensively (2010).

Primary care supply could play a role in reducing socioeconomic health disparities and improve overall population health (Rhode Island Department of Health, 2012). Macinko, Starfield, and Shin (2007) found that at state, city, county and rural areas, there was a positive correlation between improved health outcomes and primary care supply using the number of PCPS per 10,000 population (2007). Several health outcomes plus all-cause mortality studies examined by Macinko et al. (2007) showed that increased primary care supply lowered infant mortality and reduced the number of low weight babies born (2007). They examined two studies on the impact of low birth weight and infant mortality on the health outcomes of infants in addition to five studies that revealed associations between increased primary care supply and specific rates of common adult mortality causes of heart disease and cancer (Macinko et al., 2007). Macinko et al. also reviewed two studies that elucidated the associations between increased supply and increases in self-rated health impacts (Macinko et al., 2007). Therefore, these studies show the impact of primary care supply in reducing health disparities and improving health.

The impact of primary care supply has also been studied by Shi et al. (2005), who examined the connection between primary care resources and income inequality within all populations in the United States and in White and Black populations over an 11-year period. They revealed significant and inverse associations of primary care supply with both Black and White mortalities (Shi et al., 2005). Increasing the primary care pool by one additional physician per 10,000 population greatly reduced mortality by 14.4 per 100,000 population, and the primary care coefficients impacted higher mortalities for

blacks than for whites (Shi et al., 2005). Improvements in primary care supply not only led to better health outcomes but also showed that elderly and permanently disabled Medicare recipients experienced lowered healthcare costs (Shi et al., 2005). Furthermore, increases in use of primary care correlated with cost savings and improvement in health outcomes as reported by two case reports on state Medicaid populations (Rhode Island Department of Health, 2012).

Community Care of North Carolina's success in improving health outcomes and cost savings for the state's Medicaid population can be attributed to its 1,200 primary care practices during its first 10 years (Steiner et al., 2008). According to The Mercer Group independent analysis, annual savings by Community Care of North Carolina was estimated at $160 million (Steiner et al., 2008). However, the state was able to change and extend the delivery of healthcare of Medicaid enrollees in Aid to Families with Dependent Children and to low income pregnant women/uninsured children below 7 years of age. This in part was made possible by a federal Medicaid Research and Demonstration waiver issued to Rhode Island in 1993 (Leddy, 2006). All Aid to Families with Dependent Children families including the pregnant women/children in the expansion group were enrolled in RIte Care between 1994–1995 (Leddy, 2006). RIte Care is the state's Medicaid managed care program and illuminated a significant positive association between quality, access and health outcomes with use of primary care (Leddy, 2006). This program not only showed the decline in patients' emergency room visits and hospital days halved from previous levels, but also elucidated that physician visit rates

were almost tripled from an average of two per annum to almost five per annum (Leddy, 2006).

A specific 1990–1999 study on the impact of the program on infant mortality showed a 10.7 to 6.8 (36%) decline in infant mortality rates per thousand births. The gap between Medicaid and privately insured infant mortality rates was significantly reduced from 4.3 to 1.5 deaths per thousand births (Leddy, 2006). Rhode Island Medicaid discovered that infants' postneonatal mortality rates decreased from 4.5 to 1.9 deaths per thousand, or a 57% decrease. Because this postneonatal infant mortality sharp decline is not reflective of the rest of the nation, it can be assumed to be indicative of improvements in pediatric care access (Leddy, 2006). A recent study included an examination of patients with colorectal diagnosis of cancer between (1994–2005) in the Surveillance, Epidemiology and End Results Medicare linked database. Findings revealed a positive association between colorectal cancer outcomes and primary care use (Ferrante et al., 2011). Ferrante et al. (2011) examined the number of primary care visits before and after diagnosis within this population. The authors found that people who visited a PCP were more likely to receive cancer screenings and therefore had lower mortalities for both colorectal and all-cause mortality. This meant that individuals with five to 10 visits had (16%) lower colorectal cancer mortality (adjusted hazard ratio 0.84; 95% CI, 0.80-0.88) and (6%) lower all-cause mortality (0.92; 0.91-0.97) compared to persons with zero or one visit (Ferrante et al., 2011).

Brief History of Mifflin County

Forty-eight of Pennsylvania's 67 counties are considered to be rural based on population density, and Mifflin County is one of them (Pennsylvania Rural Health Association, 2010). These distinctions in rural Pennsylvania are fraught with some significant challenges in quality healthcare delivery services across the healthcare spectrum (Pennsylvania Rural Health Association, 2010). In 2016, Mifflin County's population estimate was 46,346 (United States Census Bureau, 2016). As of the 2010 census, there were 18,743 households within the county (United States Census Bureau, 2014). Housing units were 21,537 at an average density of 51.9 per square mile ($19/km^2$). The land and water areas cover 412 and 2.7 square miles respectively, while the population density was 114 people per square mile (CityData.com, 2016). The cost of living index in Mifflin county was 88.4 in 2013——less than the U.S. average which is 100 (CityData.com, 2016). In the State of Pennsylvania, the metropolitan area ranked 10th and 237th in the United States as the most populous (CityData.com, 2016).

Nearly 8 million acres occupy rural Pennsylvania's 59,000 farms, which possesses abundant natural resources, beautiful scenery, a strong work ethic, and proud communities (Pennsylvania Rural Health Association, 2010). The whole of Pennsylvania's rural residents were estimated at 3.4 million in 2008 (Pennsylvania Rural Health Association, 2010). In the United States, Pennsylvania is the 33rd largest, 6th most populous, and the 9th most densely populated (CityData, 2016). Mifflin County was established from Cumberland County and Northumberland County on September 19th, 1789 and was named in honor of Thomas Mifflin, first Governor of Pennsylvania

(Genealogyinc.com, 2016). The state capital is Harrisburg while Lewistown is its County Seat. Mifflin County is bordered by Centre County (North), Union County (Northeast), Snyder County (East), Juniata County (Southeast) and Huntingdon County (West). Municipalities located in this County include townships—Armagh, Bratton, Brown, Decatur, Derry, Granville, Menno, Oliver, Union and Wayne—and boroughs—Burnham, Juniata Terrace, Kistler, Lewistown, McVeytown and Newton Hamilton (Genealogyinc.com, 2016).

Occupations providing employment in Mifflin County mostly come from industries such as agriculture, forestry, fishing, hunting and mining (24.3%), while, health, social services and education provide the other 12.2 percent (CityData.com, 2016). Several underlying sociodemographic features in Mifflin County are impacted by many health indicators including graying of the population and limited or no health insurance for many people as well as those living in poverty (Lewistown Hospital et al., 2013). Numerous county residents, due to lack of or limited education/technical qualifications have limited job opportunities (Lewistown Hospital et al., 2013). Several health behaviors in Mifflin County fall behind state and national benchmarks such as: teen birth rate, obesity, smoking and physical inactivity (Lewistown Hospital et al., 2013). Mifflin County ranks 35 out of 67 counties in Pennsylvania for positive health behaviors (Lewistown Hospital et al., 2013).

The racial makeup of the county was 96.4 percent White, 0.64 percent Black or African American, 0.11 percent Native American, 0.36 percent Asian, 0.01 percent Pacific Islander, 0.31 percent from other races, and 1.03 percent from two or more races

(United States Census Bureau, 2014). 5.7 percent report speaking Pennsylvania German, Dutch, or German at home. Out of 18,743 households, 29.1 percent had children under the age of 18 living with them, 57.60 percent were married couples living together, 8.50 percent had a female householder with no husband present while 29.90 percent were non-families (Lewistown Hospital et al., 2013). Twenty-six percent of all households are made up of individuals, 13.20 percent of which has someone living alone who was 65 years of age or older. The average household size was 2.49 while the average family size was 2.99 (Lewistown Hospital et al., 2013). The school district serves most counties in Mifflin County.

Barriers to Primary Care Access

The gaping health disparities that exist between rich and poor, insured and uninsured, rural and urban, black and white (and other racial and ethnic groups) are demonstrably linked to access barriers (National Policy Consensus Center, 2004). Health care is a uniquely vital service in the human experience — at times literally dictating life and death (MacKinney et al; 2014). Rural Americans face issues related to healthcare affordability and provider availability issues and for them, access to health care services remain particularly acute (MacKinney et al; 2014). According to the Institute of Medicine (1993), society becomes ethically obligated to provide equitable health care access that is free of burdensome responsibilities when health care is considered as a merit good. Gulliford et al. (2002), in agreement with the above statement, stated that healthcare is both a social good and a human right but this is not the case in the United States. Johnson (2005), further reiterated that healthcare as a “merit good” should be a commodity that is

readily available to individuals or societies in times of need, rather than on willingness or ability to pay. Thus, access to healthcare services means timely use of personal health services to achieve the best health outcomes, as this not only influences overall physical, social, and mental health status but also prevents disease/disability; detects/treats health conditions, and improves quality of life, life expectancy and preventable death (Healthy People 2020, 2012). Unmet healthcare needs emanating from access barriers, results in delays in receiving appropriate care, hospitalizations that could have been prevented and inability to get preventive services (Healthy People 2020, 2012). MacKinney et al. (2014) stated that population health is contingent on individual productivity and societal progress. Thus, access to healthcare is critical to society, ensuring optimal health, productivity and well-being (Mackinney et al; 2014).

In 1932, Franklin Delano Roosevelt said that any governments' success or failures must be measured by its citizen's well-being in the final analysis. The importance of a state's public health cannot be overemphasized. The success or failure of any government in the final analysis must be measured by the well-being of its citizens and nothing can be more important to a state than its public health. Until recently, medical research primarily addressed the needs of the majority population, with little examination of the cultural or gender-based influences on disease rates or health outcomes among diverse communities (National Institutes of Health, 2013). As the United States population continues to grow in diversity, health disparities have been noted between different population groups. Health care scientists increasingly recognize the impact of race, culture, gender, socioeconomic status, living conditions, and geography on the health of individuals and

communities (National Institutes of Health, 2013). Many communities, which may include minority, low-income, rural, or non-English-speaking groups, as well as others such as the disabled or the homebound, are considered medically underserved (National Institutes of Health, 2013). Barriers resulting from language, isolation, and cultural differences often limit access to health care and reaching these underserved communities often requires specialized interventions (National Institutes of Health, 2013).

Penchansky and Thomas's (1981) five dimensions of access to healthcare provide a convenient way to examine the many issues that contribute to access to care, and the barriers to access.

Availability

Availability is the relationship between patients' needs and volume of services (Kullgren, 2011; Penchansky & Thomas,1981; Penchansky & Thomas,1984). Studies have shown that patients' demand or use of healthcare services are influenced by many factors including availability of such services. Prasad et al.'s (2015) community-based study in Pondicherry India in 2014, showed a satisfactory utilization of primary health center by community residents due to healthcare provider availability, less waiting times and health education activities (Prasad et al; 2015). The Tajistan study conducted by Fan and Habibov (2009), also found that the availability of qualified healthcare providers was a determining factor for healthcare use. Saloner et al.'s (2015) audit study on primary care appointment availability and preventive care utilization showed that adults with private insurance were more unlikely to utilize preventive services despite higher county-level appointment availability, while Medicaid enrollees with greater availability of

Medicaid appointments were more likely to utilize preventive care services (Saloner et al; 2015). Mifflin County not only faces a growing elderly population plus an increased number of people living in poverty but also, has many people with limited or no health insurance (Lewistown Hospital et al., 2013). According to Healthy People 2020 (2015), individuals without health insurance are likely to skip routine medical care due to high health care costs, thus predisposing them to more serious and debilitating health conditions. The leading causes of death in Mifflin and Juniata Counties are cancer, stroke and heart disease (Lewistown Hospital et al., 2013).

Increases in demand for costly medical technology requires economies of scale and centralized services. It is argued that where a person lives matters and influences their ability to obtain healthcare and the type of health services available to them (Radley & Schoen, 2012, p. 3). Although, rural people face health access issues, the causations are complex and multifactorial (MacKinney et al; 2014). Primary care Health Professional Shortage Areas (HPSAs) are areas that have a population-to-full-time-equivalent-primary-care-physician ratio of at least 3,500:1 (Health Resources and Services Administration, 2012a). Health Professional Shortage Areas are used to determine eligibility for certain programs and grants. Compared to people not residing in a Health Professional Shortage Area, those residing in Health Professional Shortage Areas are more likely to be uninsured, less likely to have private insurance, more likely to have Medicaid or other public insurance, more likely to be in fair or poor health, and more likely to be ill with any chronic condition (Hoffman, Damico, & Garfield, 2011).

For rural dwellers, the issue of healthcare access entails much more than mere provider-to-population ratio alone.

In Mifflin County, the ratio of PCPs to population is (1,277:1), Juniata County is (3,291:1), Pennsylvania is (1,067:1) and the national benchmark is 631:1 (Lewistown Hospital et al., 2013). Medically Underserved Areas/Populations are areas or populations designated by Health Professional Shortage Areas as having too few primary care providers, high infant mortality, high poverty or a high elderly population (Health Services and Research Administration, 2016). As stated above, four components make up the index of medical under-service in eleven distinct areas within Mifflin and Juniata Counties (Health Resources and Services Administration, 2012b; Health Resources and Services Administration, 1995). For Juniata County, the MUA/P includes: Lack and Tuscarora townships while for Mifflin County, the MUA/P includes: Bratton, Brown, Kistler, McVeytown, Menno, Newton Hamilton, Oliver, Union, and Wayne townships/boroughs (Lewistown Hospital et al., 2013). The MUA/P is essential because it more sufficiently addresses healthcare access complexity in comparison to other public policies that only link access to funding (MacKinney et al; 2014).

Accessibility

Accessibility is the relationship between locations of patients and services (Kullgren, 2011; Penchansky & Thomas,1981; Penchansky & Thomas,1984). Policy makers are concerned about equitable and adequate access to healthcare services. Practitioners and health reformers have come together in recent years to show that poor utilization of preventive healthcare services can be linked to spatial barriers between

patient and provider which ultimately culminates in poorer health outcomes (Neutens, 2015). Rural residents often experience barriers to healthcare that limit their ability to get the care they need. In order for rural residents to have sufficient healthcare access, necessary and appropriate services must be available and can be accessed in a timely manner (Rural Health Information Hub, 2016). According to a 2008 report, there is a larger percentage of rural residents not covered by health insurance compared to their urban residents (Bennett, Olatosi, & Probst, 2008). Rural residents who reside in remote areas are also least likely to be covered by health insurance (Bennett et al; 2008).

Grzybowski, Stoll, and Kornelsen's (2011) Canadian study on the role distance played in the use of healthcare services among rural residents, concluded that rural women in labor were more likely to experience adversities in perinatal outcomes if they had to commute long distances to access maternity care. Bourke (2006) study showcased that poor health status was directly linked to inadequate access to care services and was a determinant factor in health outcomes. Gage and Guirlene's (2006) study highlighted the importance of accessibility in Haitian women's use of maternal healthcare. The authors found that transportation problems reduced the likelihood of a great number of women being delivered in the hospital or birthed by trained medical personnel, and increases if the neighborhood has an antenatal care provider present in the community. Fradgley et al.'s (2015) study utilized Penchansky and Thomas's (1981) model of healthcare access to provide a detailed summary of common and unique barriers experienced by chronic disease groups when accessing and receiving care. Study findings were used to suggest recommendations for change to improve the delivery of patient-centered care and

increase equity in access to high-quality services (Fradgley et al; 2015). Dai's (2010) study found that women in Detroit (Michigan) who lived closer to mammography clinics were more likely inclined to attend mammography screenings when invited. Hiscock et al.'s (2008) study in New Zealand, revealed an inverse relationship between travel time, access and utilization of general practitioners/pharmacies. In Mifflin County, 6 townships/3 boroughs: Bratton, Brown, Kistler, McVeytown, Menno, Newton Hamilton, Oliver, Union and Wayne, qualify as medically underserved areas due to the percentage of the population below poverty; the percentage of the older population; the mortality rate of infants and the availability of PCPs (Lewistown Hospital et al., 2013). Juniata and Mifflin Counties' primary care access, falls below the national benchmark partly due to reductions in primary care physician's workforce pipeline and the difficulty in recruiting physicians to rural areas (Lewistown Hospital et al., 2013).

Accommodation

Accommodation is the appropriateness of systems for accepting patients (Kullgren, 2011; Penchansky & Thomas,1981; Penchansky & Thomas,1984). According to the Rural Health Information Hub (2014), access barriers in rural areas may include: privacy concerns, anonymity and social stigma. Confidentiality issues may deter residents from seeking care for problems related to pregnancy, mental health, sexual health, or even common chronic illnesses or substance abuse for fear of being seen by other residents utilizing certain services/other employees, or the lack of trust/poor rapport between patients and their healthcare providers (Rural Health Information Hub, 2016). In healthcare delivery, people may patronize a health care facility that accommodates and

understands their individual situations. According to Allen et al.'s (2014), Oregon Health Plan study, 14 percent of patients reported a stigmatizing experience with the health care system while 80 percent of the patients reporting stigma, felt it from a personal interaction with a provider or the health care system. These patients were also more likely to perceive their health as fair or poor, rather than good, very good or excellent (Allen et al; 2014). In the United States and Canada, mental health disorders are the leading cause of disability, accounting for as much as 30,000 mortalities in Americans annually (Lewistown Hospital et al., 2013). Mifflin County's suicide rate is above the state average and national benchmark due to inadequate mental health services. Also, the mental health providers in Juniata and Mifflin Counties fall below the state average (Lewistown Hospital et al., 2013).

Affordability

Affordability is the relationship between prices and ability to pay (Kullgren, 2011; Penchansky & Thomas,1981; Penchansky & Thomas,1984). The lack of reliable transportation is a barrier to care (Rural Health Information Hub, 2014). Rural communities have more elderly residents who suffer from chronic conditions that may require multiple visits to healthcare clinics. Conversely, multiple trips require a reliable source of transportation. The Commonwealth Fund Biennial Health Insurance 2014 Survey conducted by the Princeton Survey Research Associates International, found significant declines in the number of United States adults who lacked health insurance (Collins, Rasmussen, Doty, & Beutel, 2015). The survey results evidently suggested that the coverage gains provided allowed working-age adults to get the healthcare they needed

while reducing the financial burden from medical bills and debt (Collins et al; 2015). The Affordable Care Act is working to expand health insurance coverage to millions of Americans by increasing the tax credits for families, thus improving affordability issues (Obama, 2010). In Mifflin County, 16 percent of the population are uninsured which is higher than the national benchmark of 11 percent (Lewistown Hospital et al., 2013). Many residents in this county fail to successfully and cost-effectively manage their overall healthcare needs due to lack of access to primary care (Lewistown Hospital et al., 2013).

Acceptability

Acceptability is the relationship between providers and patient preferences (Kullgren, 2011; Penchansky & Thomas,1981; Penchansky & Thomas,1984). Low health literacy levels abound in rural areas because they are less educated as compared to their urban counterparts. This leads to communication silos between them and their healthcare providers (Rural Health Information Hub, 2016). According to Agency for Healthcare Research and Quality (2014), limited health literacy is associated with a decreased likelihood of using preventive health services and a greater likelihood of medication errors and poor health status. Carman et al. (2009) stated however, that patients' and family members' perceptions of quality of care are influenced to a large degree by their perceptions of a given provider, since they often assess the quality of care primarily based on their interpersonal interactions with the provider, as opposed to the provider's specific clinical skills in treatment and diagnosis. According to Ruiz-Moral et al. (2006), providers tend to focus more on clinical aspects of quality in terms of skills in

diagnosing, treating, and obtaining positive clinical outcomes than on patient's emotions, mood, expectations, or personal life.

Community-Based Research as a Potential Tool for Change

CBR provides professional researchers with a tremendous opportunity to use their skills to solve community problems, and to learn from community members how their expertise can be used to effect change (Chopyak, 2016). CBR fosters collaboration between healthcare scientists and community leaders to build sustainable efforts at the local level to improve health for all (National Institutes of Health, 2013). Since the 1980's, CBR has become a well-known and widely practiced research methodology as well as a powerful tool for social change in countries around the world (Chopyak, 2016). The Loka Institute (a nonprofit research, education, and advocacy organization located in Amherst, Massachusetts) inspired by the Dutch model, brought this concept to the United States and created the Community Research Network (Chopyak, 2016). Since then, CBR continues to make empowerment through mutual learning universally accessible (Chopyak, 2016). According to Minkler and Wallerstein (2008), CBR not only incorporates values and strategies to promote collaborative inquiry based on community-identified issues but also fosters equitable partnerships and structures for participation. Minkler and Wallerstein (2008) went on to say that CBR also seeks to apply research to practice and policy for social change, and reduces health disparities. Burke's (2006) study found that understanding the perspectives of consumers is central to improving rural populations' health services. CBR has been highlighted as a core strategy in the first National Institutes of Health Summit to eliminate disparities (Dankwa-Mullan et al;

2010). CBR starts with a research topic of interest to the community and aims to combine knowledge with taking actions, including social change to improve health (Horowitz, Robinson, & Seifer, 2009). The viewpoints of persons outside the target communities have long dominated the development programs to improve health. Such interventions, created solely by outsiders, have often worsened the inequalities that researchers aimed to address, creating tension that dissuaded community members from sharing invaluable perspectives and ideas, and hindering the subsequent entry of researchers into communities (Green & Mercer, 2001). However, including community members as partners may facilitate research (Chopyak, 2016; Horowitz et al; 2009). Who would know better than community members, whether the research methods and tools are sensible and engaging, and how to structure participant recruitment so that people want to take part than the community members themselves? (Chimezie, 2013).

Collaborative problem solving at the community level holds great promise for improving healthcare access (Fragley et al 2015). In New Zealand, the 2001 Primary HealthCare strategy requires primary health organizations (PHOs) to involve communities in their governance and be responsive to communities' needs (Nuewelt, 2012). In Neuwelt's (2012) research, key findings from a national study undertaken in the wake of the 2001 primary care reforms on the purpose and process of involving communities in primary health care, revealed varied views on community participation among different stakeholder groups in the sector. Most described it as a complex process of relationship-building over time and one that is quite distinct from consumer feedback processes in general practice (Neuwelt, 2012). For community representatives, it was a

process of trust-building/information-sharing between communities and health professionals; and these relationships enabled people to feel comfortable seeking care, and for professionals to mold services to people's needs (Neuwelt, 2012). The author concluded that as citizens, members of disadvantaged communities are partners with general practices and primary health organizations (PHOs), who in turn work with them to improve health equity by ensuring that services are responsive to their needs (Neuwelt, 2012). CBR is invaluable and may be advantageous for researchers aiming to maximize the relevance, rigor, and results of their work to take a closer look. The challenges to CBR indicate that it is moving from the margin to the mainstream. A growing evidence base supports its effectiveness. These include: many fellowship programs, mini-courses, workshops; numerous peer-reviewed articles and journal theme issues; increased funding opportunities, universities with career paths for CBR faculty, community organizations that recognize the role of CBR in building capacity/local resources and national membership organizations that support CBR practitioners and advance the field (Horowitz et al; 2009).

Literature Related to Methodology and Methods

As required by the evaluative structure of Walden University, I presented a unified discussion of the qualitative research tradition—as well as the justification for using the the selected paradigm and explanations of why other research methodologies would unlikely be effective. In this section, literature related to methodology and methods are presented.

I used a qualitative, CBR design and phenomenological approach to explore the issue of primary care access for Mifflin County rural residents in this study.

Qualitative Research Design

In comparison to quantitative research, qualitative inquiry employs different philosophical assumptions; strategies of inquiry; and methods of data collection, analysis and interpretation (Creswell, 2009, p. 173). Qualitative research thus refers to the meanings, concepts, definitions, characteristics, metaphors, symbols and description of things (Berg, 2007). The research questions often stress how social experience is created and given meaning. The value-laden nature of such an inquiry stresses the relationship between the researcher and subject (s), as well as the situational constraints that shape the inquiry (Denzin & Lincoln, 2011). This method of inquiry is appropriate to study Mifflin County – a collection of rural communities because it will identify what and how CBR in primary care has the potential to improve health outcomes for disadvantaged members of the community (Neuwelt, 2012).

Phenomenological Approach

One of the most popular methodologies used in doctoral dissertations is phenomenology (Simon & Goes, 2011). According to Christensen, Johnson and Turner (2010), the primary objective of a phenomenological study is to explicate the meaning, structure, and essence of the lived experiences of a person, or a group of people around a specific phenomenon (Simon & Goes, 2011). The phenomenologist attempts to understand human behavior through the eyes of the participant in the study. This has been called verstehen which is German for the interpretive understanding of human interaction

(Simon & Goes, 2011). A phenomenologists' world view is in line with the belief that all perceptions and constructions are ultimately grounded in a particular perspective in time and space (Simon & Goes, 2011). Phenomenology does not begin with a theory, but, instead, begins with a phenomenon under consideration. In this phenomenological research, I used multiple sources of data collection (telephone interviews and survey) to gather in-depth knowledge about a group of people (rural Mifflin County residents) and related phenomenon (primary care access).

Grounded theory involves the construction of theory through data analysis (Creswell, 2007). This approach would not be suitable for my study because my intent is not to generate theory but to explore participant perception regarding their lived experiences of a phenomenon. Case study research involves the study of an issue explored through one or more cases within a bounded system (Creswell, 2007). This approach would be inappropriate for my study because I would not be studying cases within a bounded system. Some case studies may not have clean beginning and ending points, and I do not need to set boundaries that adequately surround the case (Creswell, 2007). Further, I would not be studying "how" and "why" as this is the approach used in case study.

A phenomenological approach complements the research question, since phenomenology asks the "What' and 'How' the experience of the phenomenon come to be what is is? (Moustakas, 1994). To describe the phenomenon in a rich and descriptive manner, the overarching research questions posed in the study sought to explore the perception of participants (residents and healthcare providers) to gather in-depth

knowledge about a group of people (rural Mifflin County residents) and related phenomenon (primary care access). To explore the problem statement, the researcher used an emerging qualitative approach to inquiry. Common to all qualitative research are several pertinent features duly considered in informing the questions:

- Collection of data was done in a natural setting;
- The researcher was instrumental in data collection and analysis;
- Multiple data sources (interview and survey) were used;
- Data analysis was inductive, methodical, categorical, and emergent;
- Participant's perception about the problem was the main focus;
- Emergent research process;
- Researcher's interpretations relate to what was seen, heard, and understood; and
- The researcher attempted to provide a holistic account of the phenomenon under study (Creswell, 2007).

The two broad questions generally asked in this methodology include: What have you experienced in terms of the phenomenon? What contexts or situations have typically influenced or affected your experiences of the phenomenon? Thus enabling the researcher to concentrate on gathering data that will lead to a textural description and a structural description of the experiences, which ultimately provides an understanding of the common experiences of the participants in this case, Mifflin County residents and access to primary care (Creswell, 2007, p. 61). This approach will be effective in understanding community perceptions about the features of the healthcare system that

meet or does not meet their healthcare needs. It would give the people the opportunity to express themselves through words and emotions in their own environment about how they really feel about phenomenon under study – an approach a quantitative study would fail to capture (Smith, Flowers, & Larkin, 2009). A qualitative research paradigm was appropriate and phenomenology enables knowledge to emerge inductively (Rude, 2013). Epoche entails a bracketing of preconceived knowledge and prejudices about a particular phenomenon. Though not always easy to achieve, the researcher in this study had to allow that first-person accounts of the experiences from (residents and healthcare providers) drive evidence that emerges from phenomenological research (Moustakas, 1994). Finally, it is called *transcendental* because it transcends beyond the everyday to the pure ego in which everything is perceived freshly, as if for the first time and the nature of transcendental phenomenology inculcated a rich description of the experience (Creswell, 2007; Moustakas, 1994). It is called phenomenological because it transforms the world into mere phenomena (Moustakas, 1994). In the selected Mifflin County communities, where little or no research has been done, a qualitative phenomenological method became the obvious and most effective choice to interact and record public opinion on an important public health issue such as primary care access.

Summary

The five dimensions of access seen from the perspective of Penchansky and Thomas' (1981) guided this research and provides a comprehensive view and a reminder that complex health systems need careful deliberations on changes in healthcare policy. As the current health care delivery system begins to respond to increasing demands for

cost control and quality improvement, the risk too increases in access to healthcare services. CBR engages the most trusted members of the community where they collaborate with researchers, leading to knowledge that directly benefits communities and influences policies that affect health. It is imperative to remember that primary care access is not only determined by the presence of a healthcare facility, but by many other factors such as: demographic, economic, geographic, cultural, social, logistic, availability of human/material resources, and most of all, the need. The existence of a health facility does not guarantee that it is easily accessible to those who need it. A review of the literature showed that it is important to design access solutions for communities because access is a community problem. Though, current policy efforts focus on the provision of insurance coverage as the principal means of ensuring access to healthcare among the general population, it is imperative to remember that access is of multifactorial origin. Finally, health services researchers should seek ways to better understand primary care access and design access measures that help key stakeholders evaluate rural healthcare policies; since policy makers need objective, accessible, valid and reliable measures of access to assess current and intended health care policies. The next chapter includes a description of the study methodology used in this study.

Chapter 3: Research Methodology

The purpose of this qualitative phenomenological study was to explore the perceptions of Mifflin County residents and healthcare providers regarding residents' access to and use of primary care services as well as engage in CBR to show its capacity to promote access to healthcare services for rural residents. I focused on residents' perception of accessibility, affordability, accommodation, acceptability, and availability of local primary care services and the features inherent in the healthcare system that promote and hinder residents' use of services. Chapter 3 includes an overview of the research design and methodology, a review of the research questions and expectations for the qualitative study, an in-depth review of the research design, and the rationale for selection. In this chapter, I also discuss the processes involved in informed consent, the in-depth telephone interview process, survey process, data collection, and analysis of the study. Finally, I review the ethical considerations for human subjects that I used to ensure the protection of participants' rights.

Research Design and Approach

Penchansky and Thomas's (1981) model of healthcare access and the qualitative phenomenology tradition formed the conceptual framework for this study. CBR is a collaborative approach to research that combines methods of inquiry with community capacity-building strategies to bridge the gap between knowledge produced through research and what is practiced in communities to improve health (Agency for Healthcare Research and Quality, 2004; Hacker, 2011). To investigate the study phenomenon, I selected a community to be studied. I chose a population from among this community

and selected research participants from nine distinct medically underserved areas in Mifflin County Pennsylvania (Lewistown Hospital et al., 2013). The study participants were chosen as individuals representative of those who have experienced the phenomenon in question (see Creswell, 2007, p. 62). The focus was on understanding the study phenomenon as perceived through the eyes of the person or persons being studied (Willis, 2007, p. 107). In transcendental phenomenology, the data are analyzed by the researcher who in turn reduces the information generated into significant statements or quotes and combines the statements into emergent themes (Creswell, 2007, p. 60).

I collected data using in-depth telephone interviews and survey responses to gain a richer understanding of the phenomenon under study. Participant responses were recorded and analyzed using NVivo as they related to specific questions, and I identified emergent themes in the study. Through data collection, the researcher must also identify the second phenomenological research element that is locating the universal nature of an experience; this step is vital for the research project to be valid and successful (Creswell, 2007). In assessing the phenomenological quality of the research, the researcher must ask "(1) Does the author convey the participants' overall essence of the experience? (2) Does the essence include a description of the experience and the context in which it occurred?" (Creswell, 2007, pp. 215-216). Two focused questions are also necessary in collecting relevant data that are essential for sound analysis: "(1) What have you experienced in terms of the phenomenon? and (2) What contexts or situations have typically influenced or affected your experience?" (Creswell, 2007, p. 61). These focused questions make the phenomenological research successful. Though other open-ended questions may be

asked, these two questions help generate data that leads into textual and structural descriptions of participants' common experiences (Creswell, 2007, p. 61).

Analysis of data included identifying significant statements that give an understanding of how the phenomenon was experienced by participants (Creswell, 2007, p. 61). Statements and themes developed from the "clusters of meaning" were then used to develop descriptions of what the participant experienced, or textural descriptions, describing the context that influenced the experience (Creswell, 2007, p. 61). This allowed me to forge common understanding by properly processing the data (Creswell, 2007, p. 62). Research results were disseminated to the participants to bolster validity and accuracy of data. I conducted a discussion of the results in sufficient details to explain participants' perceptions regarding access to primary care in Mifflin County. This knowledge can provide insights to local health departments, practitioners of private practice, and healthcare administrators on how they could use data generated from this research to develop a ground-up model of healthcare that meets the specific needs of Mifflin County residents. A phenomenological study provides a deep understanding of a phenomenon as experienced by several individuals (Creswell, 2007, p. 62). The data and insight gained from a phenomenology study can be invaluable, because knowing some common experience can be valuable to groups such as therapists, teachers, health personnel, and policy makers (Creswell, 2007, p. 62).

Research Questions

To guide this study, four research questions were developed:

RQ1: What are the perceptions of residents regarding access to and use of primary care services in Mifflin County?

RQ2: What are the perceptions of healthcare providers regarding community members' access to and use of primary care services in Mifflin County?

RQ3: What are the perceptions of residents and healthcare providers on how access to and use of primary care services might be increased in Mifflin County?

RQ4: What are the perceptions of residents and healthcare providers regarding community-based research as a means of improving access to and use of primary care services among rural residents?

Role as a Researcher

In qualitative research, the researcher stands central to the data collected (Wood, 2012). As the primary instrument of data collection and analysis, I engaged the situation in a noninterfering manner without predetermined constraints or conditions that control the study or its outcomes (see Creswell, 2007; see McMillian & Shumacher, 2000; see Merriam, 1998). As an active participant in the research, I adopted an exploratory, nonjudgmental orientation by trying to learn about situations through analysis and interpretation and arrived at an understanding of the perspectives or beliefs of the people concerned (see Biggerstaff & Thompson, 2008; see Creswell, 2007; see McMillian & Schumacher, 2000). I was responsible for designing the semistructured interview and survey questions and called the participating residents, physicians, and nurses to conduct individual in-depth telephone interviews as well as administer the survey questions in their local communities. Prior to that, I gathered a small advisory group to help ensure

that the questions asked would cover the issues as experienced by community members and that my interpretation of the data afterwards was consistent with theirs. Additionally, I made assumptions, set delimitations, analyzed, interpreted, and presented the data with the aid of a software tool (NVivo). I provided participants with a copy of the transcribed notes from audio recordings to enable them to review detailed interview responses (member-checking) and verify the interpretive accuracy, because this increases reliability (Carlson, 2010). I verified participants' answers, response uniformity, and within method triangulation (Casey & Murphy, 2009), which provided a construct to test instrument reliability related to the interview questions. Similarity in responses among the participants throughout the interview corroborated the research instrument and the accuracy of responses (see Stevenson & Mahmut, 2013).

I also took other measures to ensure that the study met transferability, dependability, credibility, and conformability. Harvey (2014) also suggested a continuous member-checking loop as part of the reliability process. Because human or researcher bias due to prejudice and personal belief influences often plague qualitative research, I adhered to good conduct during the interview process and ensured that the overall planning and implementation of the planned research design was conducted in a logical, systematic manner to bolster authenticity and trustworthiness of procedures. To establish transferability (external validity), I explored appropriate strategies such as "thick descriptions" (Robert Wood Johnson Foundation, 2008), to evaluate the extent to which the conclusions drawn are transferable to other times, settings, situations, and people. I assured dependability through audit trails and triangulation (use of multiple data sources)

to collect data. Conformability was established through inter-coder reliability. I established credibility by engaging with the data in such a way that recordings, notes and transcripts were done intensively to demonstrate clear links between the data and interpretations. In the following sections, I will describe more of the research process as well as the implementation per criteria for qualitative research to bolster the authenticity and trustworthiness of this research (see Robert Wood Johnson Foundation, 2008).

Setting

This study was conducted in Mifflin County, Pennsylvania. The Pennsylvania Rural Health Association (2010) reported that since the economic, cultural, social, geographic, and demographic characteristics of rural communities differs sufficiently from those of urban communities to require special consideration in both state planning and legislation, rural areas must not only contend with sparse populations and geographic barriers, but must also contend with significant health professional shortages to address populations that are generally older, sicker, and poorer. The National Association of Community Health Centers (2011) stated that approximately 50 million people live in rural areas across the United States, and rural populations experience many of the same barriers to healthcare that affect underserved communities nationally, such as cost, language, and transportation (Kaiser Family Foundation, 2009). However, geographic isolation and fewer healthcare resources exacerbate these strains in rural areas. Further, rural residents are more likely to be elderly, poor, and have chronic medical conditions compared to residents of metropolitan areas and are also less likely to have access to

transportation (Agency for Healthcare Research and Quality, 2009; The National Advisory Committee on Rural Health and Human Services, 2005).

Study Participants

Healthcare providers (physicians and nurses) who provide healthcare services in Mifflin county as well as residents were participants in this study. Participating physicians were board certified and qualified to practice medicine in this county. The nurses were equally board certified to practice nursing within this county. The residents would have resided in the county for 5 years or more and depend on the local community health centers for healthcare service. Geisinger-Lewistown hospital is an acute care hospital that provides emergency and acute care to more than 80,000 residents in Mifflin and Juniata counties.

To begin this study, I conducted 10 in-depth telephone interviews from one physician, one nurse, and one resident chosen from each of the nine medically underserved townships in Mifflin County (Bratton, Brown, Kistler, McVeytown, Menno, Newton Hamilton, Oliver, Union, and Wayne). Then, I distributed surveys to these areas to reach a wider distribution of study participants who have all experienced the same phenomenon under study. Following approval to use this data collection method, I distributed a total of 90 mailed out surveys (10 each) to the selected townships and boroughs. This number compensated for poor survey returns. According to Community Tool Box (2016), direct mailing of survey to people whose addresses are known is the most common strategy in survey distribution, but distributing a survey by mail has a high percentage of nonresponders. The mailed-out survey privacy envelopes were color coded

to denote which survey returns came from which townships and boroughs. For communities that did not have a community health center or private clinic, the nearest health center or clinic were interviewed and reported as such. The community leaders and healthcare providers solicited participants for the study.

Sample

Inclusion and Exclusion Criteria

All participants 18 years of age and above were included in the study regardless of race, gender, employment status, or religious affiliation. Because participation in this study was voluntary, only those respondents who were willing and able to give informed consent participated fully in the study. Participants who have lived in Mifflin County for 5 years or more were included in the study, while all those who have lived less than 5 years in the county were excluded from the study.

Physician recruitment and participation in the study were based on those who were board certified and had been employed for 5 years or more within the county. This ensured that they were knowledgeable about the primary care conditions in communities that they serve d and thus were able to contribute valuable information that this study sought to uncover. The same criteria applied to nurses in this study. Only those who were 18 and above, board certified as registered nurses or licensed practical nurses, and employed within 5 years or more in communities they served in Mifflin County were eligible to participate. This ensured that only those who best reflected these qualities and were knowledgeable about primary care issues in Mifflin County participated fully in the

study. All healthcare providers working outside this county were excluded from the study.

All residents 18 and above who could give consent and have lived in Mifflin County for 5 years, including those who use the primary care services provided in these townships/boroughs participated in this study. All others were excluded as participants from the study.

Participant Selection and Recruitment

This was a qualitative phenomenological study of primary care access as seen from the perspectives of Mifflin County health professionals and residents. I recruited individuals who had experienced the lack of primary care access in Mifflin County townships and boroughs (Brown, Bratton, Kistler, Menno, McVeytown, Newton Hamilton, Oliver, Union, and Wayne). The design encompassed a mailed in qualitative survey using open-ended questionnaires and semistructured in-depth telephone interviews because the populations of interest were too dispersed over a broad geographic range for one to study feasibly with a personal interview or focus groups. These two forms of data collection were used to ensure greater participation and representation of the study population. Out of 26 respondents who participated in the study, 10 were interviewed, 16 completed and returned the qualitative surveys, and only three completed both the interview and survey. Open-ended questions can evoke responses that are meaningful and culturally salient to the participant (Mack et al., 2011). The survey responses as well as the in-depth telephone interviews helped to assess community members' and healthcare provider's beliefs, knowledge, and attitudes about primary care access.

Sample Size

There are several debates concerning what the right sample size is for qualitative research. Most scholars argue that the concept of saturation is the most important factor to think about when mulling over sample size decisions in qualitative research (Mason, 2010). The sample size used in qualitative research is often smaller than that used in quantitative research, as qualitative researchers are more concerned with obtaining in-depth understanding of a phenomenon (Dworkin, 2012; O'Reilly & Parker, 2013). Some authors recommended a sample size of 12 for participant interviews (Onwuegbuzie & Collins, 2007). I accommodated one participant each taken from the nine local communities in the physician, nurse, resident category for a total of 10, based on time constraints and availability of funds. I assumed that that number would provide adequate data to better understand the primary care access issues in the county. I also distributed 10 mailed surveys to each of the nine townships and boroughs for a total of 90 surveys. I also assumed this would provide reasonable data to understand issues with primary care access in the county. This number was expected to make up for poor survey returns often associated with mailed in surveys (Community Tool Box, 2016).

I used purposive sampling in data collection. The purposive sampling technique, also called judgment sampling, was the choice due to the qualities the participant possesses. It is a nonrandom technique that does not need underlying theories or a set number of informants (Laerd Dissertation, 2012). Here, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by way of their knowledge or experiences of the phenomenon (Lewis &

Sheppard, 2006). Key participants of this study were observant, reflective members of the community of interest (9 medically underserved areas) in Mifflin County who knew much about the topic (those with knowledge and experiences specific to primary care access in the local community) and were both able and willing to share their knowledge. For this reason, the use of purposive sampling was appropriate for my study because the success of my study was contingent on the perspectives of these participants. I recruited participants for my study in several ways based on the type of participant being sought after.

To recruit physicians and nurses in the 9 townships in Mifflin County, I will contact them directly via emails and/or phone calls through their establishments and request for their participation in the study (purposive), especially those who met the inclusion criteria. I will also post flyers within the community (health centers, private clinics, town halls, churches and schools and put out an advertisement in their local newspaper about the proposed research to create awareness after observing all protocols. I will provide a means by which I can be reached through email or phone call in the event of questions regarding the research.

To recruit the residents, I contacted the community leaders through email and/or phone calls or in person meeting. Using purposive sampling, I requested that these leaders suggest potential participants whom I asked to participate in the study. For the survey aspect, I also contacted the community leaders/healthcare providers who suggested participants for the study.

Data Collection Tools

For this study, I used instruments developed by me for data collection. To ensure the appropriateness of my interview and survey questions, assistance was sought from two expert professionals in qualitative research and made changes from feedbacks suggested. I ensured that the questions reflected the study's cultural and environmental setting clearly understood by participants, as this ensured that their responses were accurately reflective of their perspectives about conditions in Mifflin County (Kohrt et al. (2011). I also continuously monitored and assessed the instrument throughout the interview, documented data on the progress made and adjusted as necessary to fit the needs of participants (Onwuegbuzie & Leech, 2007). Translations were not necessary since participants understood the English Language which was used as a choice method of communication in this study.

I used in-depth semi structured telephone interview questions to collect data from all three participant pools (physicians, nurses and residents) and administered a qualitative survey questionnaire to same participant pools in selected Mifflin County townships/boroughs to cover a wider geographic area. According to Cachia and Millward (2011), telephone interviews are an equally viable option to other established methods of qualitative data collection, stressing that the telephone medium and interview modality are complementary. They further stated that the interview transcripts provide rich textual data that can subsequently be analyzed using a range of qualitative data analysis methods (Cachia & Millward, 2011). The World Health Organization (2004) reported that the researcher using a semi-structured interview acts as a moderator and guides the

respondent from one topic to another. Researchers using this method are advised to limit the list of the people to be interviewed to around 20-30 participants (i.e. 3-5 people from each of the identified groups), who are likely to give most information on the problem chosen from a variety of perspectives (World Health Organization, 2004). Further, Smith and Osborn (2007) stated that this form of interviewing allows the researcher and participant to engage in a dialogue whereby initial questions are modified in the light of the participants' responses and the investigator is able to probe interesting and important areas which arise. For this reason, three participants each (physician, nurse, resident) were chosen from among the nine communities in Mifflin County for a total of ten participants in all. The interview questions/qualitative survey questionnaires for the healthcare workers (physicians and nurses) supported Research Questions 1, 3, and 4 which were focused on the (a) healthcare providers' perceptions regarding community member's access to/use of primary care services in Mifflin County, (b) healthcare providers' perceptions of how access to/use of primary care services might be increased in Mifflin County, (c) healthcare providers' perceptions regarding CBR as a means of improving access to/use of primary care services among rural residents. Questions for residents supported Research Questions 2 and 3, and 4 which were focused on (a) perceptions of residents regarding access to and use of primary care services in Mifflin County, (b) perceptions of residents on how access to and use of primary care services might be increased in Mifflin County, (c) perceptions of residents regarding CBR as a means of improving access to and use of primary care services among rural residents whose contents were guided by the literature reviewed. Open-ended questions have the

ability to evoke responses that are meaningful and culturally salient to the participant (Mack et al; 2011).

The purpose of the survey questions for healthcare providers were used to obtain information regarding resident's use of primary care services provided and their perspectives on barriers to primary care access in Mifflin County. The purpose of the survey questions for residents were used to obtain information about them, ranging from their use of primary care services provided and perspectives on availability, accessibility, accommodation, affordability and acceptability of primary care services in Mifflin County. Assistance from 2 qualitative experts were once again sought through feedback and made changes as suggested, particularly with regard to validity of items. As earlier mentioned, the questionnaire were administered to 90 participants in the 9 chosen communities (Bratton, Brown, Kistler, McVeytown, Menno, Newton Hamilton, Oliver, Union, and Wayne) in Mifflin County. Find a copy of these tools in appendices A to F – (A) study flier, (B) interview questions for physicians, (C) interview questions for nurses, (D) interview questions for residents, (E) survey questions or protocol, (F) consent forms.

Data Collection

The collection of data is an important step in deciding what action needs to be taken. Multiple sources of data were used to better understand the scope of the problem at district and community level. During this step, decisions were made about the data collection methods that were used in the study. I made use of in-depth semi-structured telephone interviews/mailed in qualitative survey questionnaires to three participant pools (physician, nurse, and resident) in Mifflin County communities to cover a wider

geographic area. Triangulation was used for the basis of actions which provided a construct to test instrument reliability related to the interview questions (Casey & Murphy, 2009). According to Robert Wood Johnson Foundation (2008), triangulation involves using multiple data sources in an investigation to produce understanding. Data was organized in a way that made it useful to identify trends and themes.

Approval from the appropriate authorities, specifically the Walden University's Institutional Review Board, the Board of Supervisors as well as the Council Members from Mifflin county townships/boroughs prior to collecting any data to conduct my research study. Additional approvals were sought from community leaders and healthcare providers within the 9 selected communities. I collected data from residents and healthcare providers using a combination of in-depth semi-structured telephone interviews and surveys over the course of 10 (+-) days. According to Longhurst (2009) in-depth, semi-structured interviews are useful for investigating complex behaviors, opinions, and emotions and for collecting information on a diverse range of experiences. Telephone conversations naturally follow an agenda-driven format that is initiated by the caller, similar to semi-structured interviews (Cachia & Millward, 2011). The telephone medium and interview modality are complementary and the interview transcripts provide rich textual data for qualitative analysis (Cachia & Millward, 2011). Interviewing is regarded as one of the most powerful ways to understand human behavior and for this reason, interview was used in this research (Koshy, 2005). The World Health Organization (2004) stated that the aim of using a semi-structured interview is not to get a representative sample of the various categories of informants, but to gather a substantial

body of information from them. Surveys support data collection from a large number of people unlike focus groups and interviews alone. My focus in this research was to explore as much as possible, details aligned with my topic and to explore the perceptions of those who have lived the experiences desired. In this regard, these methods of data collection were appropriate for the research.

Interviews

I used in-depth semi-structured telephone interviews to collect data. Interviews are methods of gathering information through oral quiz using a set of preplanned core questions. According to (Shneiderman and Plaisant, 2005), the interviewer can pursue specific issues of concern that may lead to focused and constructive suggestions, since interviews can be very productive. Depending on the need and design, interviews can be unstructured (permits the interviewer to ask some open-ended questions and the interviewee to freely voice his/her own opinion), structured (uses a set of short predetermined questions which are worded clearly; in most cases requires precise answers that are presented on paper or in a read out format) since the questions are closed, and lastly is semi-structured which (uses both closed and open questions) with individuals, or may be focus-group interviews. In this research, open ended questions were used to probe the how and what behind perceptions, experiences or conditions. This option was chosen because it promoted the opportunity to ask follow-up questions and clarified issues immediately, an option not readily available in quantitative research (Trochim & Donnelly, 2008).

This method was appropriate for interviewing the participants (physician, nurse and resident). The quality of data gathering depends greatly on the expertise of the researcher who framed the questions and the interviewer's experiences in recording and transcribing information from the interview. To ensure the highest possible quality of collected data in this study, I sought feedback from experts in the field regarding the appropriateness of my interview questions and made adjustments as needed. In addition, I currently reside in Pennsylvania and have become acquainted with the social and cultural practices of the people. According to World Health Organization (2004) the best way to conduct a semi-structured interview depends on the communication rules that exist in any given society.

I began data collection by interviewing the healthcare providers using semi-structured interview questions via telephone. Three participants (physician, nurse and resident) were called and interviewed from each of the 9 communities (i.e. 2-3 calls per day), each lasting approximately 20 – 30 minutes for a total of 180 minutes in all (3 hours). The interviews were conducted in the comfort of my home via telephone to the participants' home at an agreeable time specified by them. I asked for their permission to record our discussion. In the event that participants offered information that was unclear or incomplete, I prompted them for clarification and additional details. If a participant were to offer information that was not solicited but is relevant to the topic, I prompted the participant to provide additional details as appropriate. After I completed the individual interviews, I began collecting the mailed in qualitative survey questionnaires.

Qualitative Survey

Following the in-depth telephone interviews, I began collecting data from the survey questionnaires distributed to Mifflin County townships/boroughs as they arrived in the mail. Survey research is one of the most important areas of measurement in applied social research (Trochim, 2006). The broad area of survey research encompasses any measurement procedures that involve asking questions of respondents. A survey can be anything from a short paper-and-pencil feedback form to an intensive one-on-one in-depth interview (Trochim, 2006). There are many advantages to mail surveys. They are relatively inexpensive to administer and the researcher can send the exact same instrument to a wide number of people (Trochim, 2006). They allow the respondent to fill it out at their own convenience but response rates from mail surveys are often very low (Trochim, 2006). Hence the oversampling to make up for poor survey returns. This method was appropriate for my study because my populations of interest are dispersed over too broad a geographic range for me to study feasibly with a personal interview or focus group. I anticipated that respondents would be more comfortable answering these questions from the comfort of their own homes in private and have ample time to formulate answers. The respondents did not want to be interviewed in the library conference rooms as most of the townships/boroughs were not privy to such.

I distributed a total of ninety mailed in qualitative survey questionnaires, ten each to three participant pools (physician, nurse, and resident) in the nine chosen townships/boroughs (Brown, Bratton, Kistler, Menno, McVeytown, Newton Hamilton, Oliver, Union, and Wayne) in Mifflin County using purposive sampling. The community

leaders/healthcare providers solicited participants for the study. The return privacy envelopes were color coded to denote where they came from during analysis. People come to the research endeavor with their own sets of biases and prejudices and recall bias may not be completely avoided (Trochim, 2006). Hence participants were encouraged to share their perspectives on primary care access in Mifflin County as truthfully as they could remember and be honest about their responses. Participants were asked to return completed survey questions by simply dropping it off with their outgoing mail boxes using the return privacy envelope received with survey package. Participants were notified that all respondents who completed all questions to their surveys would receive a $5 stamp gift. Offering the same incentive to all respondents is consistent with the principal of justice laid out in the Belmont report which encourages fair treatment of all respondents (Oldendick, 2012). Incentives have been found to lower refusal rates (Eyerman et al., 2005). Prior to conducting the study, pilot testing was done with a small scale replication of the actual study, targeting a small number of persons with characteristics similar to those of the target group of respondents to ensure that questions were not misconstrued by research participants.

Data Analysis

A researcher applying phenomenology is concerned with the lived experiences of the people involved, or who were involved, with the issue that is being researched (Creswell, 2007; Englander, 2012; Finlay, 2009; Kumar, 2012). The driving premise of the study was that primary care access for county residents could be improved through the use of CBR (Centre for Community-Based Research, 2011). As soon as data

collection was done, I used Edward and Welch’s (2011) extension to Colaizzi's seven-step method of analysis to allow participants to express their experiences through everyday language which offered an opportunity for the researcher to gain a deeper understanding of the individuals’ intended meaning that was not accessible through linguistic text alone. The focus is thus on understanding from the perspective of the person or persons being studied” (Willis, 2007, p. 107). NVivo software tool was used to organize and analyze the data. In transcendental phenomenology “the researcher…analyzes the data by reducing the information to significant statements or quotes and combines the statements into themes” (Creswell, 2007, p. 60). From these themes the researcher “develops a textural description…what the participants experienced and structural description…how they experienced it in terms of conditions, situations or context” (Creswell, 2007, p. 60). The combination of which “convey an overall essence of the experience” (Creswell, 2007, p. 60). As shall be shown later, this principle is essential to effective data analysis because it helps to foster the development of an in-depth understanding of the perspectives of residents’/healthcare providers’ in Mifflin County. This eight-step method though similar to Creswell’s (2007) and Babbie’s (2010) descriptions, appeared easier to understand:

The researcher:

1. Collects primary care access information as described by participants and reads and rereads all respondents’ descriptions/metaphors of the phenomenon to make sense of the whole.

2. Extracts statements of huge importance in relation to respondents' primary care access perceptions in Mifflin County. These are then extracted from the original transcripts that jointly form the whole meaning of the study phenomenon.

3. Formulates meanings from the researcher's spelled out significant statements, who from the transcripts formulates more general restatements/meanings for each statement of importance.

4. Organizes formulated meanings into theme clusters common to all participant experiences, subsequently arranged from formulated meanings. My theme clusters will be organized based on study research questions and Penchansky and Thomas's (1981) 5 dimensions of healthcare access.

5. Describes and writes exhaustively, a description of the phenomenon under investigation.

6. Explores a detailed examination of the participant's personal experience and is concerned with an individual's personal perception or account of an object or event which occurred during participant interview (Smith & Osborn, 2007).

7. Describes the phenomenon's fundamental structure and exhaustively reduces the description into an essential structure of the phenomenon.

8. Returns and validates findings with the participants, which may allow them to weigh in on new information or validate the old ones as conveyed in the study phenomenon's fundamental structure (Kumar, 2012).

Prior to returning to respondents to validate my findings, I sought inter-coder reliability of data from a second coder by asking him/her to code approximately (20%) of

the transcribed data using Edward and Welch's (2011) extension of Colaizzi's seven-step method, to organize formulated meanings into clusters of themes. To identify potential weaknesses and discrepancies in my data interpretation and analysis, I compared with the second coder the various theme clusters developed by us, using NVivo and compared our results. Theme clusters were adjusted based on discussions with the second coder as I deemed fit. Finally, I debriefed and discussed findings with colleagues who are experts in qualitative phenomenological approach and professionally familiar with the topic studied (Kumar, 2012; Noble & Smith, 2015).

I will disseminate my findings to the participants through their local news outlet where they will have the opportunity to reject, confirm, or make corrections to data shared and made adjustments as appropriate.

Steps in Methodology

1. Decide exactly what to study.
2. Select a community to be studied. In this research it was taken from the 9 selected townships/boroughs designated as medically underserved areas in Mifflin County.
3. Create awareness about research study following IRB approval and post flyers within the community (health centers, private clinics, schools and town halls). Put out an advertisement in the local newspaper about the proposed research after observing all protocols and provide a means by which researcher can be reached through email or phone call in the event of questions regarding the research.

4. Gather a small advisory group to help ensure that the questions asked covered the issues as experienced by community members and that the interpretation of the data afterwards was consistent with theirs.
5. Use purposive sampling to select study participants, representative of those who have experienced the phenomenon in question (Creswell, 2007, p. 62).
6. Use semi-structured in-depth telephone interviews and survey with open ended questions as study design.
7. Recruit physicians and nurses by contacting them directly via emails, phone calls or face to face through your advisory board members/community leaders. Then, request for their participation in the study (purposive), especially those who met the inclusion criteria (18 years and above, have worked for 5 years or more as nurse/physician in the county) and are board certified. Exclude all others. Recruit residents by contacting the community leaders through email, phone calls or in person, those who are 18+ years and above, have lived in Mifflin County for 5 years or more, and use healthcare services provided in the county. Using purposive sampling, request that leaders suggest potential participants to take part in the study. For the survey aspect contact the community leaders to help solicit participants for the study.
8. Ensure consent to participate is signed by all participants for confidentiality purposes. Send out survey package with instructions to participants ahead of time. Participants who complete survey questions in its entirety will receive a $5 stamp reward as compensation.

9. Carry out pilot testing with a small number of participants with similar circumstances before the actual study to ensure questions asked are not misconstrued. Make any corrections to research questions from results received.
10. Interview 27 participants and distribute 90 mailed out surveys to participants who meet the inclusion criteria from the selected 9 townships/boroughs in Mifflin County.
11. Make 9 calls per day each lasting approximately 20 – 30 minutes for a total of 180 minutes in all (i.e. 3 hours). Calls are to be made from researcher's home at an agreeable time specified by study participants in their homes. Ask for permission for discussion to be audio recorded.
12. Distribute 90 mailed out surveys (10 each) to the selected 9 communities. Use color coded envelopes to denote where they came from during analysis.
13. Collect and analyze data over a three-month period using Edward and Welch's (2011) extension to Colaizzi's (1978) seven-step method of analysis.
14. Make assumptions, set delimitations, analyze, interpret, and present the data with the aid of a software tool (NVivo).
15. Hire a second coder to help code data. Confirmability will be established through inter-coder reliability.
16. Provide participants, a copy of the transcribed notes from audio recordings to enable them to review detailed interview responses (member checking), and verify the interpretive accuracy. This increases reliability (Carlson, 2010). Then, verify participants' answers, response uniformity, and within method triangulation

(Casey & Murphy, 2009) which provides a construct to test instrument reliability related to the interview questions. Similarity in responses among the participants throughout the interview will corroborate the research instrument and the accuracy of responses (Stevenson & Mahmut, 2013).

17. Be cognizant of human or researcher bias due to prejudice and personal belief influences which are often unavoidable in qualitative research. Adhere to good conduct and behavior during the interview process and ensure that the overall planning and implementation of the planned research design will be conducted in a logical, systematic manner to bolster authenticity and trustworthiness of procedures. To establish transferability (external validity), explore appropriate strategies such as "thick descriptions" (Robert Wood Johnson Foundation, 2008), to evaluate the extent to which the conclusions drawn are transferable to other times, settings, situations, and people. Assure dependability through audit trails and triangulation (use of multiple data sources) to collect data. Conformability will be established through inter-coder reliability. Establish credibility by engaging with the data in such a way that recordings, notes and transcripts are done intensively to demonstrate clear links between the data and interpretations. In this research process, what will be done, how it will be done and why it will be done will be fully described; as well as the implementation per criteria for qualitative research to bolster the authenticity and trustworthiness of this research (Robert Wood Johnson Foundation, 2008).

18. Forge common understanding in the end by properly processing the data (Creswell, 2007, p. 62).
19. Use research results to offer recommendations for research and future practice.
20. Disseminate research results to study participants to bolster validity and accuracy of data. The participants may reject, confirm or make corrections to shared data and make adjustments as appropriate.

My research findings would be presented in narrative form in Chapter 4 and in data tables organized by research question and dimension of primary care access. My interpretation of findings would represent all data, including nonconforming and discrepant data. A phenomenological study provides a deep understanding of a phenomenon as experienced by several individuals (Creswell, 2007, p. 62; Kumar, 2012; Englander, 2012). The data and insight gained from a phenomenological study can be invaluable to groups such as therapists, teachers, health personnel and policy makers (Creswell, 2007, p. 62).

Ensuring Validity and Reliability in Qualitative Research

Traditionally, scientific and experimental studies criteria for ensuring the credibility of research data validity, objectivity, and reliability can be assessed in a relatively straightforward manner because they are often based on standardized instruments (Noble & Smith, 2015). Qualitative studies often utilize smaller, non-random samples and are usually not based upon standardized instruments. These evaluation criteria therefore, cannot be strictly applied to the qualitative paradigm, especially, when the researcher's focus is more in questioning and understanding the

meaning and interpretation of phenomena (Noble & Smith, 2015). However, other possible strategies and criteria exists that can be used to enhance the trustworthiness of findings in qualitative research. According to Noble and Smith (2015), four strategies: credibility, transferability, dependability and conformability can be used in qualitative research to establish trustworthiness and are constructed parallel to internal and external validity, reliability and neutrality used in quantitative research. Each strategy in turn uses criteria like reflexivity, triangulation and dense descriptions (Noble & Smith, 2015). The researcher takes cognizance of this argument and preferably uses the term trustworthiness as used by several other researchers to cover all these in qualitative research (Noble & Smith, 2015).

Protection of Human Participants

For this research, I dealt with ethical issues in the following manner:

I informed the participants of the purpose, nature, data collection methods, and extent of the research prior to commencement. Further, I explained to them their typical roles. In line with this, I obtained their informed consent in writing. The consent form will indicate procedures to maintain participant confidentiality and offer contact information for my advisor, the Walden University research participant advocate, and me, should participants have questions after the study is concluded.

In this research study, I guaranteed that no physical or psychological harm will come to any participant as a result of participating in this research. I ensured that my study met all research ethical standards of practice to protect the participants before the study was conducted. Further, prior to commencement on this study, I completed the

National Institutes of Health online course Protecting Human Research Participant. I reviewed and conformed to the provisions in the Nuremberg Code which for doing research ushered in the creation of the three basic principles set forth in the Belmont Report in the United States. In addition, any transcription of data by a second coder, required that all data be de-identified so that respondents' answers would not lead back to them. Also, only adults who were of legal age to consent to participating in this research were permitted to take part in the study.

I adhered strictly to all the ethical standards about the honesty and trustworthiness of the data that were collected and the data analysis it accompanied.

In this study, I de-identified participant data to maintain confidentiality and anonymity before widespread dissemination of information. I clearly specified that the names of participants would not be used for any other purposes, nor will information be shared that reveals their identity in any way.

Despite the afore-mentioned precautions, it was made clear to the participants that the research will only be for academic purposes and their participation in it would be completely voluntary. No one will be forced to participate. Ethical clearance was obtained from the Walden University Institutional Review Board.

I ensured that participant confidentiality was maintained before, during and after the research study by giving participants arbitrary letters/numbers and separating identifiable information from all data collected during all stages of data collection, analysis, and storage. Digital files were stored on a laptop computer which was password-protected and kept at my primary residence when not in use. For a 5-year

period, a hard copy of the digitally recorded data would be secured continuously in a locked file cabinet in the same location. Thereafter, that copy would be destroyed by me.

Summary

This chapter introduced the research methodology and methods for this study. A qualitative approach was adopted to investigate the key issue of primary care access for rural Mifflin County residents, followed by a detailed description of the implementation of research methods. This description included information about aims of the study, participant selection, data collection (interviews and survey) and data analysis procedures for this study (Edward & Welch, 2011) extension of Colaizzi's seven step method for coding data) and the use of NVivo – a qualitative software tool. This process illuminated themes and patterns of perspectives among various respondents. Reliability of data analysis was demonstrated through triangulation of my data by (a) collecting data from three participant pools (physicians, nurses and residents), (b) using (interviews and surveys) as two data-collection methods, and (c) gathering participant perspectives on study phenomenon using three data-collection instruments. The ethical considerations for this study have also been outlined. The primary focus of this chapter has been to provide descriptions for the research process and its applicability to the research questions at hand. The following chapter would report in detail on the findings of this research study which uses an emergent, exploratory, inductive qualitative phenomenological approach.

Chapter 4: Presentation of Results

In this study, I explored how community residents and healthcare providers perceive residents' access to and use of primary care services in Mifflin County, Pennsylvania and engaged in CBR to demonstrate its potential to improve residents' access to primary care services. This study was developed to address a gap in previous research on this phenomenon. Studying the underpinnings of how residents and healthcare providers perceive access to primary care revealed ideas for possible interventions that could improve primary care services for county residents. A qualitative phenomenological design guided data collection and analysis. Findings are a culmination of voices of research participants and share a deep perspective into their lived experiences. In order to study how residents and healthcare providers perceive residents' access to and use of primary care services, I established my research plan based on four primary research questions:

RQ1: What are the perceptions of health care providers regarding community members' access to and use of primary care services in Mifflin County?

RQ2: What are the perceptions of residents regarding access to and use of primary care services in Mifflin County?

RQ3: What are the perceptions of residents and health care providers on how access to and use of primary care services might be increased in Mifflin County?

RQ4: What are the perceptions of residents and health care providers regarding community-based research as a means of improving access to and use of primary care services among rural residents?

In this chapter, I present the pilot study, including the findings from the main study, that evolved from data collected through self-designed in-depth telephone interviews and qualitative survey questionnaires of 26 residents and healthcare providers selected from nine townships and boroughs in the central area of the state. Data were analyzed using Edward and Welch's (2011) extension of Colaizzi's (1978) 7-step method for analyzing phenomenological data. The interview protocol provided a venue for rich depiction of how resident and healthcare providers perceive residents' access to and use of primary care services. Careful verbatim analysis of interview transcripts allowed me to identify word and thought patterns that set the stage for later theme emersion (see Smith, Flowers, & Larkin, 2009). Following multiple readings of each transcript, I delved into phenomenological reduction by describing units of meaning, which were then clustered into themes grouped by research questions and dimensions of healthcare access. The interpretation of my findings represents all data plus nonconforming and discrepant data. Finally, a summary of study results and evidence of research quality are presented.

Pilot Study

The purpose of this qualitative phenomenological pilot study was to explore community resident and healthcare provider perceptions of barriers to primary care access, with the aim of learning about ideas for possible interventions that could improve primary care services for Mifflin County residents. In this section, I present the pilot study that was conducted before the actual research. I also present a summary of research participants followed by a thorough discussion of themes grouped by research questions and dimensions of healthcare access. Also included in this chapter are my interpretation

of findings which represents all data, a summary of results, and evidence of quality of research study. A pilot study can be used to examine a small-scale version or trial run intended to be used in a larger scale study (Leon, Davis, & Kraemer, 2011; Polit, Beck, & Hungler, 2001, p. 467).

This pilot study provided an opportunity to explore the lived experiences of three experts within Mifflin County (physician, nurse, resident) to participate using semistructured interviews through the researcher in an in-depth telephone interview format. Piloting this study not only helped inform me on the research process and likely outcomes, but also ensured that interview questions would not be misconstrued by study participants in the actual study. Some concerns became apparent in preparing this pilot study. The major concern centered on how to present oneself appropriately as a researcher. According to Hill (2006), considerations such as “who do I (researcher) want to be?” and “who do I want to be to them (participants)?” are pertinent questions qualitative researchers must ask when conducting research (p. 930). Another concern was a main data collection method for phenomenological inquiry. In order to explore the experiences of healthcare providers and resident regarding primary care access, it was important to let their voices be heard through in-depth interviews. The third concern was determining how possible it would be to have in-depth telephone interviews with the Amish community (scattered across Mifflin County) are known to be reluctant to disclose themselves to strangers and have limited use of technology (Ems, 2014). According to Cooper (2006) electronic media is seen as a threat to family fusion across plain Amish communities. Ems (2015) also stated that the Amish still generally resist nonessential

engagements with outsiders and typically will not do interviews if they think the data will be quantified and reported.

The participant recruitment strategy consisted of contacting three members of my advisory board (a registered nurse with many years of experience in the field of nursing, a secretary from Brown township, and a retired nurse) via e-mail, phone call, and face-to-face meeting. My advisory board members were chosen to help ensure that the questions asked would cover the issues as experienced by community members and that my interpretation of the data afterward was consistent with theirs. They also suggested potential participants for the pilot study (purposeful sampling). Participants were selected across three participant pools (physician, nurse, and resident) from Mifflin County that met the study protocol. Building relationships with community gatekeepers can provide access to potential participants (Kim, 2010).

The significance, rationale, and purpose of the study were provided to participants, who were also informed that they would be participating in a pilot study which would help to inform the main body of a research study. They were assured that all data provided would be used for the purposes of the study only and that confidentiality will be maintained throughout the research process. I received consent from research participants who then agreed on a time frame to hold the in-depth telephone interviews from the comfort of their own homes.

On the day of the interview, participants were called on the phone, asked for permission to record the interview discussion, and interviewed as planned, lasting 20-30 minutes. I also took down notes as the interview progressed. The prior process of

engaging with the participant in arranging the pilot interview enabled the participant to come to the interview in a relaxed manner, and through engaging with the participant during the interview, it was evident they became relaxed answering interview questions (Doodly & Doodly, 2015). The researcher needs to balance out as much as possible all prejudgments, be culturally competent and neutral while conducting interviews (Kim, 2010). In order to conduct an in-depth interview, it was important to conform to the interviewing style and consistently and consciously remind myself of my role as an inquirer from a phenomenological perspective (Kim, 2010). After the interview, participants were told that the results of the study would be sent to them via e-mail. Before the final form of the survey or questionnaire is constructed, it is useful to conduct a pilot study to determine if the items are yielding the kind of information that is needed (Simon, 2011).

Summary of Pilot Study Participants

The study participants in the pilot study can be viewed in Table 1. The self-designed pilot questions included 13 semi-structured in-depth telephone interview questions for healthcare providers (one physician and one nurse) and 18 semistructured in-depth telephone interview questions for the resident, with an average length of 20-30 minutes, and were digitally recorded by me. The three participants selected were one physician—Medical Director (MD) for a hospital in the county, one registered nurse Clinic Supervisor for a hospital in the county—both with more than 5 years of work experience, and one resident who resides and uses the primary care services provided in Mifflin County.

Table 1

Study Participants (n = 3)

Subject	Tittle	Interview Duration
P1	Physician	20-30 minutes
N1	Nurse	20-30 minutes
R1	Resident	20-30minutes

Pilot Study Participant Narratives

The following sections encompass four theme groups that represent the research questions posed in the study. Penchansky and Thomas's (1981) five dimension of healthcare access (availability, accessibility, accommodation, affordability, and acceptability) were used to categorize the 16 themes that make up this pilot study. Qualitative inquiry allowed me the opportunity to engage with these respondents as I investigated the phenomenon surrounding how they experienced community residents' access to and use of primary care services in Mifflin County. The following descriptive narratives are designed to help the reader feel the essence of participant stories and are offered as a representation of their voice regarding the study phenomenon.

Pilot Study Results

RQs 1 and 2 involved perceptions of healthcare providers and residents regarding community members' access to and use of primary care services in Mifflin County. In RQ1, healthcare providers were asked about their perceptions regarding community members' ability to access and use of primary care services in Mifflin County. In RQ2,

residents were asked about their perceptions regarding access to and use of primary care services. The themes for these two questions were merged to avoid redundancy. Eleven themes emerged from participant interview responses using Penchansky and Thomas's (1981) five dimensions of healthcare access.

Availability

Four themes emerged from participant responses.

Theme 1: Characteristics of the primary care system that work well. P1 reported, "Access is better than most communities due to robust contingent primary care physicians and advanced practitioners available for patients with chronic disease." P1 also stated that case managers are available, as well as PCPs, pediatrics, family practice, internal medicine, and independent physicians. He asserted that Careworks and urgent care are also points of access for primary care and that patients' medical records can be seen at these service centers. He noted that Mount Nittany and Primary Care Network equally provide access points of primary care in Mifflin County. P1 also stated, "Pediatric population (large pediatric group in Mifflin County) and family, utilize primary care services the most in this community." He asserted that people who use primary care services the most are those with advanced chronic diseases, diabetes, coronary artery disease, congestive heart failure, and chronic obstructive pulmonary disease, also known as COPD.

N1 stated, "Before it took 20 minutes [i.e., 40% per hang up rate] to schedule an appointment. Now hang up rate has come down [average wait time is 12–15 minutes]." She asserted that limiting for access is the use of smart phones and computers to set up

appointments online. N1 stated that "Community Practice Service Line (CPSL), specialty offices, family practice in neighboring counties and Lewistown primary care were available for services." She added that "residents with insurance utilize services the most while the underinsured use ED for primary care." R1 said that family medicine, pediatrics, obstetric doctors, and dentists were available for primary care.

Theme 2: Inadequate PCPs. P1 reported that less people are going to primary care and that it is harder to recruit primary care providers in this area. He stated that because there are not enough providers, physicians experience provider burnout. N1 stated that it is hard to get same day appointments. R1 reported that there are not enough PCPs to cover patient needs.

Theme 3: Use of emergency department (ED) as source of primary care. P1 stated, "Patients don't want to take ownership of their chronic diseases." N1 reported that patients put off medical care until very sick. She asserted that the underinsured used ED for primary care and that only residents with insurance use primary care services. R1 stated, "If my nearest hospital is not in my network of providers, I travel to next hospital or go to the ED."

Theme 4: Health insurance issues/limited providers choices. P1 reported:

> Copays, cost of care going up. Careworks supply access to people without insurance. In Centre County, there's free clinic for patients without insurance. They are seeking to open such in Mifflin County. Primary care could be made more accessible by providing Weekend clinics and Electronic Medical Record (EMR).

N1 stated, “Copays of $30 may not be viewed as affordable. Patients cancel appointments a lot if they have deductibles and copays.” She said that there are not a lot of extended hours and patients put off medical care until very sick. R1 reported, “Depending on your insurance for coverage of primary care services, sometimes all of them are covered and other times none of them.” She added that primary care services are difficult to access due to insurance coverage, cost and transportation issues. She said that primary care services could be made more accessible by improving on the time offices are open.

Accessibility

Theme 5: Transportation issues: One theme emerged for accessibility. N1 stated that there is a “need to improve transportation to and from appointments.” R1 asserted that when you call a company called cars, you can wait for hours for that transport to come.

Accommodation

Theme 6: Appointment scheduling issues/long wait times. Four themes emerged from participant responses regarding accommodation. P1 stated, “Recruit more providers. Streamline EMR to make primary care more efficient.” N1 reported that community residents are frustrated with the cost and difficulty in getting appointments. She mentioned the difficulty of making appointments as one of the main challenges or barriers that affect residents’ access to primary care services.

N1 also asserted that the Amish will not use computers to schedule appointments. She said that things can improve if patients call in and talk to a real person and not with a

third party. R1 stated that the waiting list is too long and it is very hard to get an appointment. She said that there are no complaint logs in private clinics and called on investigators to improve service.

Theme 7: Geisinger red tapes slow healthcare services down. There are unnecessary rules and regulations that interfere with the ease of rendering healthcare services. N1 stated, "Level of health care provider, physician, PA (midlevel) constrained by Geisinger and scheduling." R1 reported that they "have heard that lots of people complained and phone systems were a nightmare when Geisinger merged with Lewistown."

Theme 8: Process or procedure for filing complaints about poor service. P1 stated, "When patients are checking out, they are asked questions about services provided. Surveys are sent out to patients, operations services manager. Service recovery kits are given to patients and asked to be truthful about care received." N1 reported, "Texting patient satisfactory survey. This is not sent to everyone (random picking). Personally, I'm not sure how to file a complaint with a primary care doctor. Call in the administrative part of the office to complain." R1 stated, "No complaint logs in private clinics."

Theme 9: Elderly and Amish population groups. N1 stated, "One of the main challenges or barriers that affect residents' access to primary care services are services for the retired and unemployed." She asserted that services may be made more accessible through provision of public housing for the elderly, more clinics to treat people by

midlevel (like patients with cold, skin infections), providing medicine to people and accessing homes like they did in Harrisburg (i.e., paramedics checking in on homes).

Affordability

Theme 10: Health insurance cost. One theme emerged from respondent responses. P1 stated that copays and cost of are going up. N1 reported: "Copays of $30 may not be viewed as affordable. Patients cancel appointments a lot if they have deductibles and copays." R1 said: "Primary care services may or may not be covered by health insurance."

Acceptability

Theme 11: Patient-provider relationship. One theme emerged from participant responses. P1 reported: "Advanced centered patient medical home is responsive to needs of patients and provides access." He asserted that putting registered nurse's, case managers working hand in hand with physicians and involving patients in their own care helped with responsiveness. N1 reported: "Nurses are most responsive to patient's needs. Patients trust the opinion of nurses." R1 stated: "My provider is excellent and understands my situation."

Availability/Accessibility

Research Question 3 asked about the perceptions of residents and healthcare providers on how access to and use of primary care services might be increased in Mifflin County. Two themes emerged from participant responses.

Theme 12: Main challenges/barriers affecting resident's access to primary care services. P1 said: "Patients don't want to take ownership of their chronic diseases.

There are not enough providers and provider burnout." N1 stated: "Ease of making appointments – the retired and unemployed." She asserted that the Amish will not use computer to schedule appointments and transportation to and from appointments may be difficult. R1 stated: "The time offices are open and transportation issues."

Theme 13: Possible Solutions for increasing primary care services for community residents in Mifflin County. P1 stated: "Recruit more providers, provide weekend clinics and EMR. Provide free clinics (free care)." N1 reported: "Urgent care expansion, visiting nurses for people." She asserted to call in and talk to a real person, not with a third party. She added to open options again for people and provide public housing for the elderly. She suggested to get more clinics to train people by midlevel (like patients with cold, skin infections), provide medicine to people and have paramedics access homes (like they did in Harrisburg) many years ago. N1 also stated the need for efficiency instead of limiting care for patients. She asserted that insurance providers (like High Mark) are traded on stock markets and focus on making money instead of caring for people and their healthcare She cited an example that her parents have Humana which puts deductibles and copays on the people they are serving and insuring. R1 stated: "The time offices are open, improve transportation, physician recruitment, provide packages and compensations that are attractive."

Community-Based Research

Research Question 4: Perceptions of residents and healthcare providers regarding community-based research as a means of improving access to and use of primary care services among rural residents. Responses from all respondents generated three themes.

Theme 14: Role of CBR in primary care access. P1 reported: "Help identify socioeconomic issues for patients." N1 stated: "Employ community-based researcher's, community based liaison to look at what other counties are doing." She asserted that community outreach personnel could use statistics on callbacks and central scheduling offices to design newer processes that work as well as to pilot studies. R1 stated: "Helpful! Brings more information to the community with resources and ideas on how to improve things."

Theme 15: Benefits of CBR in primary care. P1 stated, "Identify issues that concern Mifflin County (difficulty in recruiting physicians to the area)." N1 said, "Help identify movers and shakers of local government that dole out and assign funding dollars, design programs – clinic or public housing areas. The local government will be more in touch with community members who care for their well-being." R1 reported, "We are isolated from the rest of the world." She asserted that it should be done collaboratively with community members.

Theme 16: Willingness to participate in CBR. P1 stated: "Yes! As MD I already do that on a regular basis." N1 reported: "Not sure as an individual but maybe as a task force or group think tank." R1 stated: "Absolutely!"

Other Concepts.

In response to the final question - is there anything else you would like to tell me? Only P1 had something to add. Participant stated: "There are a lot of challenges to primary care access but Geisinger has made strides in addressing these challenges in affordable and quality care."

It is worthy of note to mention that Geisinger-Lewistown hospital is an acute care hospital that provides emergency and acute care to more than 80,000 residents in Mifflin and Juniata counties in Pennsylvania (Lewistown Hospital et al., 2016).

Summary of Results

This sections includes a summary of the results organized by theme.

- Theme 1: Characteristics of the Primary Care System that work well: Results indicate that access to primary care in some communities in Mifflin County (like Lewistown) was better than most. Participants agreed that Lewistown had robust and contingent advanced practice professionals who were available to provide primary care services for patients with chronic disease. There were also Community Practice Service Line (CPSL), specialty offices, family practice in neighboring counties and availability of service recovery kits to file complaints about services received.
- Theme 2: Inadequate PCPs: Participants agreed that the shortage of primary care physicians cause physician burnout/attrition and also causes scheduling delays. This oftentimes force patients to use the ED or urgent care. Participants called for providing attractive benefit packages to physicians to motivate them to work in rural areas.
- Theme 3: Use of ED as source of Primary Care.: Participants agreed that residents in Mifflin County use the ED for one of many reasons like lack of health insurance, provider shortages, patients not taking ownership of their chronic diseases, limited provider choices, and delaying treatment until very sick.

Participants called for education to allow individuals make informed decisions about their health and they also urged leaders to hire more providers.

- Theme 4: Health Insurance Issues/Limited Providers Choices: Participants agreed that lack of health insurance/limited provider choices impacted access to primary care in Mifflin County. Participants advocated for free clinics for the uninsured and underinsured.
- Theme 5: Transportation Issues: All participants agreed that community residents experience transportation difficulties due to lack of or unreliable transportation services and urged leaders to improve transportation services to ease access to primary care.
- Theme 6: Appointment Scheduling Issues/ Long Wait Times: Participants said that shortage of PCPs cause long waits and delays in getting appointments. Residents then seek out other options like visiting the ED or urgent care. Participants urged leaders to hire more providers.
- Theme 7: Geisinger Red Tape Procedures Slow Healthcare Services Down: Most of the participants agreed that Geisinger health system's rules and regulations constrain the provision of treatment services for patients and can impact primary care access. Participants called for riding the system of loop holes that cause unnecessary delays in treatment services.
- Theme 8: Process or Procedure to file Complaints about Poor Service: Though most participants agreed that there were procedures to file complaints or reports

about poor service, R1 stated that there were no complaint logs in private clinics and urged that complaint logs should be provided in private clinics.

- Theme 9: Elderly and Amish Population Groups: Participants agreed that the Amish and elderly population groups face unique challenges in Mifflin County. They suggested that improving transportation services and providing public housing for the elderly could improve access to primary care.
- Theme 10: Healthcare Cost: Participants agreed that due to high healthcare costs people give up on treatment of chronic diseases and preventative care and called for the provision of free clinics for those without insurance.
- Theme 11: Patient-Provider Relationship: All participants agreed that providers were responsive to patients' needs – especially nurses who patients' trust.
- Theme 12: Main challenges/barriers affecting resident's access to primary care services: Participants agreed on many factors that affect residents' access to primary care services like transportation issues, lack of insurance and the Amish peoples' refusal to use technology to schedule appointments.
- Theme 13: Possible Solutions for increasing primary care services for community residents in Mifflin County: Participants offered ideas for possible interventions that could help improve access to primary care like providing attractive physician benefit packages to pool physicians to rural areas, improving transportation services, reducing cost and increasing provider choices.

- Theme 14: Role of CBR in primary care access: Participants agreed that CBR could help improve primary care access by bringing more information to the community with resources and ideas on how to improve community needs.
- Theme 15: CBR Benefits Consumers of Primary Care: All participants agreed that CBR could benefit primary care consumers by identifying movers and shakers of local government that doll out and assign funding dollars and also helps to design programs like clinics or public housing areas to meet patients' specific needs.
- Theme 16: Willingness to participate in CBR: All participants agreed that they would participate in CBR to help improve primary care access.

Lessons Learned from the Pilot Study

In a number of ways, the implementation of the pilot study proved essential. Firstly, identifying potential issues/barriers related to participant recruitment (Doodly & Doodly, 2015). Secondly, engaging oneself from a phenomenological perspective, where from the participants' experiences, the researcher creates meaning in an attempt to comprehend their perspectives, perceptions, and understandings of a particular situation or phenomenon; through engaging with participants and a shared meaning, the researcher can express the experience from the participants' perspective (Doodly & Doodly, 2015). Thirdly, reflecting the importance of the research process/difficulty in conducting phenomenological inquiry, and reflecting on the interview and the interview questions (Doodly & Doodly, 2015). Another important aspect of the pilot was the realization of the underestimation of the time required to conduct the transcription of the audio recording and the time required to go through the data-analysis process to formulate

higher order categories from the initial highlighted key statements (Doodly & Doodly, 2015). Listening to the recording and reading through the transcript helped me improve as an interviewer and the way of introducing the issues into the interview and moving between topics. The pilot study certainly helped me to gain experience, develop as a researcher and understand the related possible risks and study costs (Doodly & Doodly, 2015).

Evidence of Quality

The best description of quality in qualitative research is evidenced by the study's ability to prove its credibility, transferability, dependability, and conformability, coupled with how well the results of the study approximate the truth (Trochim & Donnelly, 2008). It was a calculated effort on my part to engage meaningfully with the data this way and judge the quality of my study results using these applicable concepts – since my research inquiry is based on a qualitative phenomenological foundation with interest in the lived experiences of the participants.

Conformability and credibility exists and are established in this research by study results and therefore, approximate the truth about resident/healthcare provider perspectives regarding residents' access to primary care, and the potential for CBR to serve as a means of promoting the use of primary care services in Mifflin County.

One of such instances for credibility and conformability of my research results comes from participants making few corrections of interview transcripts through member-checking. Only one healthcare provider (N1) suggested that I correct three sentences in her interview transcripts (for example, she asked me to change case to ease)

of making appointments, (train to treat) people by midlevel and (tax to taskforce). P1 and R1 did not make any corrections to their interview transcripts with regard to my interpretations of the data. Also using a 2nd coder and review from qualitative experts (committee) helped with credibility and conformability of my research results.

Another example of credibility in my study is the result of my prolonged engagement with participants in an in-depth telephone interview format – long enough to build a rapport and earn their trust so they shared intimate experiences with me. For example, one participant described that her parents have Humana health insurance – which put deductibles and copays on the people they are serving and insuring. She also informed me that even as a nurse, she did not know how to file a complaint about poor service received in a private clinic. The sharing of such private and personal experiences suggests that rapport was created long enough for her to share such truthful and embarrassing experiences.

The triangulation of data is another example of credibility in my study results. I collected data from the three participant pools (physician, nurse and resident) using two data collection instruments (interviews and field notes). The three groups of participants generally agreeing on the conditions associated with primary care access for Mifflin County residents further suggests that the data I collected were valid.

Summary of Pilot Study Results

The results of this pilot study (grouped by theme), provided insight into the research questions posed by exploring the experiences of Mifflin County resident and their healthcare providers regarding community residents' access to and use of primary

care services. This study also examined the role of CBR in improving access to and use of services provided. CBR received strong support from all participants. Results from this study elucidated the challenges/barriers faced by residents in the county to primary care access and offered ideas for possible solutions to problems elicited. This study also helped to identify potential challenges I might encounter when conducting the actual study and served as a means to prepare me prior to commencing the main study.

The overall results of this pilot study highlighted the characteristics of the primary care system that work well, the challenges and barriers to primary care access/ideas for possible interventions that could help improve access to primary care in Mifflin County, and the role of CBR in primary care access. Key findings included that (1) access to primary care in Lewistown community in Mifflin County was better than most due to robust and contingent advanced practice professionals available to provide primary care services for patients with chronic disease; (2) multidimensional factors such as shortage of PCPs, insurance cost, appointment scheduling issues, transportation issues, Geisinger red tape procedures, patients' lack of ownership of chronic disease and absence of free clinics for people without insurance impact access to primary care; and (3) healthcare providers/residents in CBR can provide ideas for possible intervention that could help improve access to/use of primary care services in Mifflin County.

Though the results of the pilot study did not generate any new information requiring any changes to be made to the materials or procedures in the actual study interview questions, it was helpful in not only identifying the fact that purposeful sampling will be effective in recruiting research participants for the main study but also

revealed that the Amish community may not be willing to participate in the actual study.

Main Study

Main Study Participants

A total of 26 participants made up the sample in this study as shown in table 2: They composed of two physicians, four nurses (2 registered nurses, 2 licensed practical nurses) and twenty residents. Strategically, the only participants I included are those who: (a) are board certified as physicians or nurses and have worked for 5 years or more in that capacity in local hospital centers or clinics; (b) residents 18 years and above who have lived in Mifflin County for 5 or more years; (c) who utilizes the primary care services provided in the county and have never been employed as physicians or nurses. There were 10 respondents from Brown township (2 physicians, 2 nurses and 6 residents), 2 from Bratton, 1 from Kistler, 1 from McVeytown, 3 from Menno, 2 from Newton Hamilton (1 Licensed Practical Nurse and one resident) 3 from Oliver, 1 from Union and 3 from Wayne township (1 Licensed Practical Nurse and two residents; Table 2). Ten participants were interviewed and 16 completed the survey questionnaire (Table 3).

Table 2

Main Study Participants

Township/Borough	Physician (n = 2)	Nurse (n = 4)	Resident (n = 20)
Brown	2	2	6
Bratton			2
Kistler			1
Menno			3
McVeytown			1
Newton Hamilton		1	1
Oliver			3
Union			1
Wayne		1	2

Table 3

Interview and Survey Participants

Variable	Interview (n = 10)	Survey (n = 16)
Physician	1	1
Nurse	2	2
Resident	7	13

The self-designed research study questions included thirteen semi-structured in-depth telephone interviews/qualitative survey questionnaires for healthcare providers (physician and nurse) and eighteen semi-structured in-depth telephone interviews/qualitative survey questionnaires for the (resident), with an average length of 20 – 30 minutes for the in-depth telephone interviews were conducted and digitally recorded by the researcher.

Codes assigned to research participants in Mifflin County and the steps taken in recruiting them are detailed in Appendix R. In the following sections, the theme clusters that represent the study's research questions are presented. There are three theme clusters. I have categorized the thirty themes that make up the theme clusters and grouped them using Penchansky and Thomas's (1981) five dimensions of healthcare access (availability, accessibility, accommodation, affordability, and acceptability). Some descriptive participant narratives are included and designed to capture the reader's attention and help them feel the essence of respondents' experiences through storytelling and are given as a representation of their voice regarding the phenomenon under study.

Theme Cluster 1

Research Questions 1 and 2 requested perceptions of healthcare providers/residents regarding community members' access to and use of primary care services in Mifflin County. In Research Question 1, healthcare providers (physician and nurse) were asked about their perceptions regarding community members' ability to access and use of primary care services in Mifflin County. In research question 2, residents were asked about their perceptions regarding access to and use of primary care

services. The themes for these two questions were merged to avoid redundancy. Nineteen themes emerged from participant responses.

Availability Themes

Theme 1: Insufficient community health centers. Seven out of the nine townships/boroughs (Bratton, Kistler, Menno, McVeytown borough, Newtown Hamilton borough, Oliver and Wayne) in Mifflin County communities do not have any hospitals or clinics available to them directly, but rather receive primary or emergency care outside their communities. Only Union and Brown townships have community clinics available to them. MD1 reported that there are three major access points for primary care in Mifflin County (Geisinger-Lewistown hospital, Mount Nittany Medical Center and Primary Health Network). He added that there are a few independent physician practices available to residents. Other participants agreed that 3 major groups provide primary care services for residents in Mifflin County communities. R18 stated that the only issue in Union township was primary care for the Amish residents who are building a clinic for themselves. R12 agreed that providing a local clinic will help alleviate some of the burden placed on residents in Mifflin County as they always have to travel outside their communities to seek medical help. Meanwhile, N3 stated: “I work at JC Blair’s Convenient Care Center (CCC) in Huntingdon. We see many patients who say they cannot be seen by their primary care physician. Our Convenient Care Center has really helped our community.”

Theme 2: Inadequate PCPs. R1 stated that orthopedist and urologist are not readily available in Brown township. R5 from same township, reported that a

dermatologist was not available. R7 from Bratton township, reported that some of the specialties are difficult to access. She asserted that when she had a root canal, she had to go out of the area to seek a doctor that specialized in her case and also did the same when she had a nerve damage. R10 from Menno township stated that there are no dentists or dermatologists in his community. R12 from same township, asserted that there are no mental health doctors (psychiatrists) there. He added that a cardiologist was not also available. R9 from Kistler borough, claimed that specialized services required at least 1 to 2 hours trip. R2 stated that other problems people experience when trying to get medical help was: “Appointments with physician assistants [PAs]—someone other than your primary care doctor.” R16 from Oliver township stated: “Child broke arm, no pediatric orthopedic doctor in area. Had to travel to Danville.” R18 from Union township reported: “Primary care services for the Amish are not available and this area has a large Amish community.” She added that there are no local physicians and people have to travel outside to find that. N1 from Brown township stated: “In our area, I believe it’s the lack of physicians. Large turn around of physicians in this area.” N2 from same township stated that the problem was the difficulty in getting a new primary care physician after establishing a rapport with him/her when they leave. N3 from Newton Hamilton borough reported:

> There are times when primary care doctors cannot take every call. There are more patients than there are PCPs. More convenient care facilities are needed to meet patients’ needs. We obviously have a shortage in PCPs who are able to accept new patients.

N4 from Wayne township stated that a lot of providers are not from small communities. R12 from Menno township reported that when someone has high anxiety and is upset, that person literally has to beg for an appointment to be seen as there are no real choice of doctors in the area.

Theme 3: Use of ED as source of primary care. N2 reported, "This area uses the ED as their primary healthcare (especially 20-30 years)." R11 stated, "When we were not able to get to the regular doctor office, we went to urgent care." R14 reported, "Never had a problem unless it was the weekend. We would go to the ER if a need arises."

Theme 4: Long appointment wait times. R2 reported that they are not able to get appointments for several months and experience long waits in the Emergency Room. R12 stated that primary care was usually same day and timely but getting an appointment with a specialist usually takes a 2 to 3 week wait and mental health was a 3 to 5-month wait. Participant added that emergency care was always many hours of waiting on a gurney in the hallway.

Theme 5: Limited provider choices. R3 reported that Geisinger has too much "Red Tape" (unnecessary rules and regulations that delay treatment services) to wait for. Participant added that she heard of an excellent physical therapist who could not get physical therapy for himself/herself for 6-8 weeks because of Geisinger's red tape procedures. N4 reported that if one has Geisinger insurance, one can only go to Geisinger providers. R5 asserted that selection was limited to one large provider due to limited choices. R19 from Wayne township reported, "We have the Geisinger healthcare system. We are a small community and that's the only company that provides healthcare in our

area."

Theme 6: Health insurance issues. N1 reported that uninsured Amish patients in her community are affected greatly by healthcare costs. R4 agreed that lack of insurance and government mandates are some of the other problems people face when trying to get medical help. R7 and R8 asserted that they navigated through out-of-network issues by petitioning their providers to join their insurance networks and they did. R13 stated that when navigating through out-of-network providers, it becomes necessary to travel at least 60 miles and asserted that people complain about cost of treatment. N3 reported that a female patient quit taking her insulin because of cost. She did not have prescription coverage. N3 also added that cost of medicine for the elderly was not affordable since people who make too much money are required to buy their own medicine. R15 stated that more money will make things a little easier for residents. R14 said that people give up treatment if they have poor insurance.

MD2 reported:

> Mifflin County is the 2nd poorest county in the state. Cost of care, studies and medication is a huge challenge. Geisinger who took over our local hospital is not participating with multiple Medicare Advantage Plans such as: Senior Blue, Freedom Blue. United Healthcare is also a major challenge for many elderly patients.

MD1 stated that Mifflin County is one of the poorest in PA. He said that high deductibles of (up to $5000) causes patients to forgo treatment of chronic diseases and

preventative care. N4 added that none of the primary care services are affordable unless one was eligible for assistance or receives free services.

N1 stated:

> Mount Nittany offers 50 percent off program for patients that are uninsured. There are the voucher programs for free mammograms for uninsured patients as well. The Amish patients in our community without insurance are affected greatly by this.

R10 reported that the Amish go across the boarder to Mexico because they believe care was cheaper down there. R20 from Wayne township stated that health insurance was way too high for residents. MD2 stated that those with adequate insurance have no difficulty accessing care but that the uninsured or underinsured have great difficulty. R13 reported that people complain about cost of treatment.

R5 reported:

> Our county recently went through hospital acquisition with Geisinger health system and all its sales pitches to support local businesses and return the small town physicians did not come true after the acquisition. The promises went by the rapids.

R3 stated that she has heard complaints about people wanting to switch from Geisinger to Mount Nittany. She reported: “Geisinger having too much Red Tape to wait for: heard of an excellent physical therapist who could not get physical therapy for himself/herself for 6-8 weeks because of Geisinger’s red tape procedures.”

Theme 7: Limits on Medicaid access card. N3 stated:

> Dentists do not take the Medicaid Access Card and patients have to seek other dentists who might be 31/2 hours away. We could use more PCP's and dentists who accept Access/Medicaid. Many patients seen at our Convenient Care Center state they have dental caries, abscessed teeth and have to travel greater than 3 hours to find a dentist.

R13 said: "Medicare has risen to the point that primary care physicians are unable to start up in rural areas."

Theme 8: Unmet patient needs. Most of the study participants agreed that some services are difficult to access sometimes forcing patients to seek medical attention elsewhere. R12 asserted that: "Primary care is usually same day and timely but getting an appointment with a specialist is usually a 2 to 3 week wait. Mental health is 3- to 5-month wait." R12 added, "When you are crying plus high anxiety, you have to beg for an appointment. No real choice of doctor in the area." N3 reported that she believes doctors try to see people as quickly as possible. But that some offices have more patients than they have daily appointments in her observation.

R1 stated, "My daughter broke her growth plate in elbow. Local orthopedist never saw a break and instead referred daughter to Hershey where she received the help she needed. I broke my femur and was life flighted to Hershey Medical Center." R1 added that the local hospital could not accommodate their needs, so a referral was made. She asserted: "One quickly realizes how things can change in the blink of an eye. Quickly change your life for 12 weeks till you recover." R10 reported: "No dermatologist in Geisinger network to serve Lewistown. Really need to insist that we get a dermatologist.

I go to State College or Danville for one." R10 added that it was hard not having a dermatologist when he is scheduled for follow-up every year. He added that he intends to get this issue resolved, since he has psoriasis and needs to be checked regularly by a dermatologist. According to him, its been about a year since his last check-up. R11 stated:

> Daughter was having belly pains and it was outside of doctor's regular office hours. When we were not able to get to the regular doctor office, we went to urgent care. Glad we had urgent care and I didn't have to go to the ER.

R16 reported: "Child broke arm, no pediatric orthopedic doctor in area. Had to travel to Danville."

R19 stated:

> Not in our area. With Geisinger, if they don't have the staff to meet the needs of patients, they have bigger hospitals in Danville, Harrisburg and Hershey. They would transport the patient. Pretty big network.

While most participants agree that there are procedures in place to file reports or complaints about poor service, only a handful agreed to have completed such surveys while others stated there was no procedure in place to file complaints about poor service.

N1 reported:

> Patients can speak to the office manager at anytime. Usually when they speak to any of our nurses about any complaints, we do take it above to administration to ensure that their visit is much better next time when they come.

MD1 stated that patients could:

> Report to administration who would ask the doctor to respond to what the concern was. For independent practice, patients could go somewhere else if they don't like the doctor. But if blackballed by the doctor, the patient cannot come back to the hospital and has to travel to another clinic 20 miles away.

MD2 reported: "In our office there is a suggestion box. There are Press-Ganey Surveys to assess quality of service. Any complaints are addressed at local and at medical system level." N3 stated that they have a patient complain form at JC Blair's Hospital/Convenient Care Center. She added that serious complaints are addressed through the chain of command. N4 reported that one could complain to the office or hospital but that she knows from experience, nothing gets done about it. R2 said: "I hear complaints about Geisinger and people wanting to change to Mount Nittany, but I do not know specifics, other than comments." R12 reported that billing could become a bit testy at times. R18 stated: "None in place here. When we go to clinics if there are complaints, the procedures in place are passed onto the board of supervisors to take it up since they select our insurance."

R19 reported:

> Whenever we have an appointment with our Geisinger doctor or hospital, we get a questionnaire every time for every visit (about 4 pages) and they ask for our opinion on everything from how long it took to see the primary care physician to did they listen to our needs? It gets annoying.

Accessibility Themes

Theme 9: Traveling distances to care facilities. Most of the respondents agreed that access to primary care in rural communities requires some travelling distances since they are not situated in places where people live.

R8 reported:

> This is a rural area. People are aware of such when they move/live here. We expect to drive a reasonable distance (15-20 miles or more) to reach hospital/doctor's clinics. That is as accessible as you can get in a farming community.

N3 reported that physician offices in Huntingdon and Lewistown were 30-minute drive from her home. R9 stated: "We are rural area and we have medical center 1 mile away. We use lab satellite there, but doctor is in Huntingdon, 12 miles away." R12 reported that Geisinger hospital primary care was 25 miles from her home. R13 stated that primary care was approximately 12 miles outside of McVeytown. R14 also reported that his PCP was 20 miles from his home.

Theme 10: Transportation issues. Though, majority of respondents said that they drive or are driven to clinics or hospitals during times of illness using their personal own vehicles, most of them agreed that transportation remains a big issue that impedes access to primary care. R15 stated that call ambulances take a long time to come.

R19 reported:

> The only thing I could think of is people that don't have transportation, if they have a way to call for transportation to get to their doctor. But again in our area,

we have Mifflin-Juniata. They are the van they can call.

Accommodation Themes

Theme 11: Appointment scheduling issues. N1 reported:

> I believe that sometimes it's difficult. Oftentimes when you call the doctor's office, you get a machine, you don't get to talk to a real person and you need to leave a message in order to get scheduled for appointments and other things.

R2 stated that there are no afterhours services except ER. R5 reported: "Call centers to schedule appointments vesus direct call to physician/clinic which makes the experience better." R12 stated that getting appointments with specialty care doctors was next to impossible – specifically mental health professionals were almost out of reach and patients with high anxiety and stress levels would literarily cry and beg for appointments to be seen.

Theme 12: Special needs of Amish community. The Amish are a group of Christians in the United States and Canada known for their simple ways of life and avoidance of technology. Most participants agreed that these population groups are scattered all across Mifflin County and needed to be educated on available financial assistance in the community as well as where to access such services (like transportation and ways to help with healthcare cost). MD1 stated that the Amish do not follow doctor's recommendations and have (15% or higher) illiteracy level. R18 reported that the other problems people experience when trying to get medical help was primary care for the Amish community. She added that they are building a clinic for themselves through

fundraising. R10 asserted that the Amish go across the boarder to Mexico in search for cheaper healthcare.

Theme 13: Special needs of the elderly. All respondents agreed that their communities have many elderly patient groups. MD2 reported that the elderly, those with medical problems and people with psychiatric illnesses utilize primary care services the most in the Mifflin County. N4 stated: "Access can be difficult especially for elderly people. Its 12 miles in one direction and over 20 miles in the other direction." R7 stated that transportation might be difficult for the elderly. She added that elderly people have family that takes care of them but when absent, it might be hard for them to get to appointments. R13 reported: "Most services are covered by Medicare as our community is 50 percent elderly." MD2 stated: "Geisinger who took over our local hospital is not participating with multiple Medicare Advantage Plans such as: Senior Blue, Freedom Blue. United Healthcare is also a major challenge for many elderly patients."

Affordability Themes

Theme 14: High deductibles and copays. MD1 stated: "Main challenge that affects residents' access to primary care services is cost." He added: "No competition among MD's. Insurance with high deductible may be getting a huge bill. Patients may not come in or make appointments." R1 stated that people are free to pay for services if not 100 percent covered. She said that there are copays, deductibles, coinsurance and that she has copays when seeing her family physician. R9 stated that her insurance covers all but a copay of $15 was required for doctor visits.

MD1 reported:

> It is inherently wrong that some people work and sacrifice and have high deductible plans and other people insist they can't work and have everything taken care of for them. They get meds free, radiographic studies for free. Soon the people who do the right thing and work decide it is easier to not work and get taken care of. Link employment with healthcare.

Theme 15: Medication cost. N3 stated that a patient quit taking her insulin shots because she could no longer afford the medication as she has no prescription coverage. MD2 said that the cost of care and medication are a huge challenge that affects primary care in Mifflin County. N4 reported that cost of insurance, healthcare and prescriptions are out of control in Mifflin County.

Acceptability Themes

Theme 16: Language barrier. R1 stated that language barrier and finances are some of the other problems people experience when trying to get medical help. R8 stated that other problems experienced by patients when trying to get medical help was "language barriers – not only accents but style of language." R8 suggested that providers: "Use plain speech – not medical terminology. Modify volume as needed – speak slowly, have the person repeat the important information to be sure they understand."

Theme 17: Patients' literacy level. MD1 asserted that well off educated patients are more responsive to primary care services provided by members of the healthcare team than their illiterate – low socioeconomic counterparts with poor insurance. MD1 stated that the Amish community has (15%) or higher illiteracy levels and do not follow doctor's recommendations.

Theme 18: Patient behavior. Many participants agreed that their healthcare providers accommodate and understand their situations. Participants also agreed that healthcare providers are very responsive to their needs. N1 stated: “Mount Nittany Physician groups are extremely responsive to our community. If a patient calls-in to be seen that day, they are seen that day. Oftentimes, they work late to see all the patients that we need to see.”

MD1 said that if patient was not abusing pain or narcotic medications, doctors are responsive. MD1 also reported that if a patient was blackballed by a doctor due to unethical behavior, that patient has to seek medical care else where. MD1 asserted:

> If researchers could study patient behavior (unethical bad behavior by patients) it would be fantastic. In substance use and abuse, patients abuse the system. Disability, malingering so one won’t work. Driver of cost in America is patient behavior. People sell drugs in the street. Substance use and abuse, alcohol, drugs and tobacco. The government has to be smarter with patient behavior. Patients should have a job. Government should not be the enabler. There should be drug screening – expectations of patients to be clean of drugs. Doctors are being forced to deal with patients with chronic pain. Referring them to pain management doesn’t help as the pain management physicians want to do the high cost procedures and then have the primary care physicians manage the opiate medications. Primary care physicians have not been trained to deal with drug seeking behavior or opiate addiction.

MD1 added:

> One day a patient came to see me for a disability examination. He was in a wheelchair and showed so much pain, I could hardly do an appropriate examination of him. I suspected he was faking it so I followed him at a distance out of the building to see for myself if he could walk without the wheelchair and I was shocked to see him walking behind the chair pushing it. Needless to say he did not get the disability status he wanted by pretending to be disabled.

Theme 19: Patients' lack of self-care in chronic illness. R3 reported:

> Individuals must take responsibility for their care as well. People should do what is advised, follow-up as they should, go to appointments, get to the lab before appointments. Too many people do not do enough for themselves. I do not mean to be judgmental, I have seen this lack of self care as a 53 year-old over the years.

R7 stated that she believes people have to be responsible for their own welfare, work and not expect a free ride.

Theme Cluster 2

For Research Question three, all respondents were asked how access to and use of primary care services might be increased in Mifflin County. Seven themes evolved from participant responses. Refer to appendix S for more detailed participant solutions for improving primary care access in Mifflin County.

Availability Themes

Theme 20: Reform the primary care system. Most participants agreed that reforming the primary care system will be a good place to start as this ensures that community residents receive good quality healthcare. R12 reported: "We the (U.S.)

should have the same medical care system as Western European natives have. It is only U.S. corporate greed that is preventing it." R12 added that the American healthcare system should just follow the lead of advanced Western European Nations healthcare systems. MD1 asserted that:

> In single payer system, patient choice would disappear. There would be one place to go, that's it and few appointments would be available. MDs would want more time off and get trampled upon. Encourage MDs to be independent which increases patient choice and decreases cost, but MDs do not want to work in rural areas. MD's will make more money and want to make patients happy since patients grade doctors on patient satisfaction. . . . In single payer system, everyone will be covered. Lab costs involved, limit what patients demand when not indicated. Patients have been spoilt to some degree and MDs are whipped by the system. Access card shows great inequality. If you need healthcare, you have to work. Healthcare should not be free.

MD2 stated: "Universal healthcare as in every other major modern democracy. Geisinger is accepting other Medicare Advantage Plans." N1 stated: "Would like to see the facility come up with a van system to get patients that don't have transportation and would like to see a physician or have X-rays or bloodwork in the office." MD2 suggested to vote and lobby for legal action against medical systems that practice anticompetitive practices. N2 reported to entice PCPs to come to a rural setting and use this as a stepping stone to better healthcare. She added that employers should make it worthwhile for them to stay.

N3 suggested hiring more providers and dentists who accept Access Card. N3 also added that in order to reduce patient-provider ratio, employers should hire more PAs and NPs to reduce the workload of physicians. N4 stated that insurance should be accepted at all facilities. She added that this needed to start at the top as it is not just a rural problem.

R2 said that appointments should not be overbooked. R3 agreed with R2's statement above to hire more quality people since doctor's schedules are oftentimes over-filled and over-booked. R4 stated that government has no place in healthcare and that providers should provide what is best for the patient. R4 also stated to inform people of what is available locally. R5 reported that calling the local physician's office directly to schedule appointments will make primary care access a lot easier. R7 stated to provide transportation system to pick elderly patients to and from medical appointments. R10 called for a good transportation system for the Amish community so that they will have a place to go for medical care. He added: "From a cost effect stand point, I don't think it can be made more accessible." He said that people should perhaps go to a place where the population is larger, where more facilities will be available to them. R14 called for providing a better healthcare system for people at a good price and for providers to have longer hours and weekend services. R15 said to make care site a little closer, since rural people are so spread out. R18 suggested building a clinic for the Amish and holding fund raisers so that they can have a place to go for primary care. For more details on other possible solutions suggested by respondents in this study, refer to Appendix S.

Theme 21: Provide more community health centers. There are no community health centers available in 7 out of the 9 townships/boroughs (Bratton, Kistler, Menno, McVeytown, Newton Hamilton, Oliver and Wayne) visited in Mifflin County. Residents of these communities had to travel many miles for primary or specialty care services. Only two townships (Brown and Union) have local community health centers and a hospital nearby. Many participants in these townships/boroughs stated that they were used to not having community health centers within their communities because it was something they grew up with and has become the norm for them. Participants reported that transportation to and from doctor offices remain a big challenge especially for people without transportation – in particular the elderly and Amish groups. However, they suggest that having care sites a little bit closer would make primary care more accessible. MD1 reported that there were three major access points for primary care in Mifflin County (Geisinger-Lewistown hospital, Mount Nittany Medical Center and Primary Health Network). He added that there were also a few independent physician practices available to residents. R12 agreed that providing a local clinic would help alleviate some of the burden placed on residents in Mifflin County as they always had to travel outside their communities to seek medical help. Meanwhile, N3 reported: "I work at JC Blair's Convenient Care Center at Huntingdon. We see many patients who say they cannot be seen by their primary care physician. Our Convenient Care Center has really helped our community."

Theme 22: Hire more PCPs. Majority of the participants stated that more doctors are needed to meet patients' demand for services. R1 stated that orthopedist and

urologist were not readily available in Brown township. R5 from same township, reported that a dermatologist was not available. R7 from Bratton township, reported that some of the specialties were difficult to access. She asserted that when she had a root canal, she had to go out of the area to seek a doctor that specialized in her case and did the same with the nerve damage she had. R10 from Menno township stated that there was no dentist or dermatologist in his community. R12 from same township, asserted that there was no mental health doctor (psychiatrist). He added that a cardiologist was not also available. R9 from Kistler borough, claimed that specialized services required at least 1 to 2 hours trip.

R2 stated that other problems people experienced when trying to get medical help was: “Appointment with a PA – someone order than your primary care doctor.” R16 from Oliver township reported that when her child broke her arm, they had to travel to Danville for treatment because there was no pediatric orthopedic doctor in the area. R18 from Union township stated that she was concerned about the primary care services for the Amish since Union township has a (large Amish community). She added that there were no local physicians in the area and people had to travel outside to find that. N1 from Brown township asserted: “In our area, I believe it’s the lack of physicians. Large turn around of physicians in this area.” N2 from same township stated: “The problem is that a person gets established with a PCP and that person then leaves and you have to struggle to get another one.” N3 from Newton Hamilton borough reported: “There are times when primary care doctors cannot take every call. There are more patients than there are PCP’s. More convenient care facilities are needed to meet patients’ needs.” N3 continued that

they obviously have a shortage in PCP's who are able to accept new patients. N4 from Wayne township stated that a lot of providers are not from small communities. R12 from Menno township reported: "When you are crying plus high anxiety, you have to beg for an appointment. No real choice of doctor in our area.

Theme 23: Employ the services of NPs and PAs in rural areas. N3 stated that her community could use more providers. She added that hiring more PAs and NPs could reduce patient-provider ratio and ease the workload on physicians. R3 stated: "Hire more quality people. The best most loved medical people here are way too busy and their schedules are over-filled and over-booked."

Accessibility Theme

Theme 24: Improve transportation. Though, majority of respondents said that they drove or were driven to clinics or hospitals during times of illness using their personal own vehicles, they agreed that transportation remains a big issue that impedes access to primary care in Mifflin County. N1 suggested setting up a van system to ease transportation difficulties. R15 stated that call ambulances take a long time to come. R19 reported:

> The only thing I could think of is people that don't have transportation, if they have a way to call for transportation to get to their doctor. But again in our area, we have Mifflin-Juniata. They are the van they can call.

Affordability Theme

Theme 25: Make healthcare more affordable. Most participants agreed that improving healthcare affordability would also improve access to primary care. N1 stated

that the Amish patients in her community without insurance are affected greatly by healthcare costs. R10 asserted that the Amish go across the boarder to Mexico because they think healthcare would be more affordable over there. R4 agreed that lack of insurance and government mandates were some of the other problems people faced when trying to get medical help. R7 and R8 asserted that they navigated through out-of-network providers by petitioning their providers to join their insurance networks and they did. R13 stated that when navigating through out-of-network providers, it became necessary to travel at least 60 miles and asserted that people complained about cost of treatment. N3 reported that a female patient quit taking her insulin shots because they were too expensive for her without prescription coverage. N3 added that cost of medicine for the elderly was not affordable since people who made too much money were required to buy their own medicine. R15 stated that more money would make things a little easier for residents. R14 stated that people give up treatment if they have poor insurance. MD2 reported:

> Mifflin County is the 2nd poorest county in the state. Cost of care, studies and medication is a huge challenge. Geisinger who took over our local hospital is not participating with multiple Medicare Advantage Plans such as: Senior Blue, Freedom Blue. United Healthcare is also a major challenge for many elderly patients.

MD1 stated that Mifflin County was one of the poorest in PA. He said that high deductibles (up to $5000) caused patients to forgo treatment of chronic diseases and

preventative care. N4 added that none of the primary care services were affordable unless one was eligible for assistance or free services. N1 stated:

> Mount Nittany offers 50 percent off program for patients that are uninsured. There are the voucher programs for free mammograms for uninsured patients as well. The Amish patients in our community without insurance are affected greatly by this.

R10 reported that the Amish go across the boarder to Mexico because they believe care was cheaper down there. R20 from Wayne township stated that health insurance was way too high. However, all participants agreed that lowering healthcare costs would greatly benefit community residents and help to improve access to primary care.

Accommodation/Acceptability Theme

Theme 26: Educate community residents about primary care access. N1 reported that it is very important to help the Amish and the elderly in her area understand that financial assistance was available to the uninsured or low insured patients. R1 stated: "Educate people about programs available out there for low income, if you have no insurance. Educate people on how to voice complaint to help improve healthcare." R4 agreed that informing people of what is available locally through education would help them greatly. She stated that residents should be educated on what services are available and where to get these services (like transportation) and ways to help with cost. N3 stated: "There should be more education for PCPs on the management of drug addiction and Katie's law should be passed. This is dear to my heart because I lost a nephew to drug overdose."

Accessibility/Acceptability Theme

Theme 27: Use Health Information Technology (EHR) to Coordinate Care Services. R9 stated to have medical center satellite to the hospital and labs. She added that JC Blair's Convenient Care Center sometimes has a doctor and other times do not. She said that it was best to coordinate care services to make it a little more efficient and close the gap on physician shortages.

Theme Cluster 3

For research question 4, all participants were asked what their perceptions were regarding CBR as a means of improving access to and use of primary care services among rural residents. Participant responses generated three themes.

Community-Based Research

Theme 28: CBR improves Access to Primary Care for Community Residents. A total of 76.9 percent of participants agree that CBR can help to improve access to primary care while 23.1 percent participants thought otherwise. N3 said that CBR can help to improve medical care needs. N4 stated that CBR can help identify commonalities of cancers and other disease processes in the community. R2 reported that CBR can help list what the public views as problems and propose possible solutions. R3 stated: "Its role should be to provide information to see where more qualified medical people are needed and to educate people about taking care of themselves." R4 reported that CBR can help in educating residents on what services are available and where to find them (especially transportation to services) and ways to help with cost. R5 stated that CBR can help to identify specialty shortages. R6 reported that CBR can help in keeping the variety of

doctors and specialists in her area. R7 stated that she was not sure how much good research does without the ability to change. However, she added that CBR can: "Raise some of the concerns of the citizens in the community and provide possible suggestions for solving those problems—which is instrumental to something that can assist them."

R10 stated that CBR can get: "Data from different sources of people with different objectives and different needs [i.e., broad spectrum of people with various ideas.] Identify other problems where there is need. Community-based researchers are well versed or situated to finding areas in need."

R15 stated that CBR can help to identify community needs. R18 said CBR can help to improve accessibility thus making it easier for people to go for primary care. She added that Union township has a large community of elderly. R8 stated that CBR can help to expand services presently available at local hospitals or clinics. R9 stated that CBR can possibly help to provide another doctor and medical center. She added that it can also help to provide satellite for state health clinics, just like the one they used to have one in Mount Union. R11 said that CBR can help them know where more doctor offices are required. R14 stated that CBR can help provide more efficient service and care for local residents.

Theme 29: CBR benefits primary care consumers. Participant responses were variable regarding the benefits of CBR in primary care access. A total 57.7 percent of participants thought that CBR was beneficial in primary care access while 42.3 percent were cynical of its benefits. N1 reported: "Important to see if community leaders will be

able to get more affordable healthcare for residents. Examples would be: prescription, vaccines, lab work, X-rays to help them get the care that they really need."

MD1 stated:

> Don't feel that local leaders have a lot of say. Politicians were misinformed by the drug manufacturers (i.e. Purdue Pharmaceuticals) in the 1990's and changed the laws to allow addictive medications to be prescribed by the physicians. Physicians were told that they were undertreating pain. I have little belief that these same misinformed politicians can make an intelligent decision on healthcare. I personally don't believe in lobbying congress because misinformed politicians make decisions based on poor information. Both sides don't get a chance to lobby at the same time to have lively debate. These politicians should do the right thing all the time. Drug screening for those that are getting public services would help curb the abuse of drugs.

MD1 added:

> One day a patient came to see me for a disability examination. He was in a wheelchair and showed so much pain, I could hardly do an appropriate examination of him. I suspected he was faking it so I followed him at a distance out of the building to see for myself if he could walk without the wheelchair and I was shocked to see him walking behind the chair pushing it. Needless to say he did not get the disability status he wanted by pretending to be disabled.

R19 stated:

No! Because community leaders are not the ones that are in control of that type of need in our township. The supervisors will have no say or contact in the county. But at the county level, you have the commissioners- they too would not have any say because there is a network of hospitals and care providers in the area that actually have their own board of directors. So the supervisors or commissioners would not have any input.

R1 reported that community leaders may not get that they are doing anything wrong. She urged community-based researchers to talk to them to improve upon what they were doing. R2 stated "They will listen but usually do not see any changes." R4 reported that education helps in bringing new facilities and personnel.

R5 stated:

Don't see any benefits. Our county recently went through hospital acquisition with Geisinger health system and all its sales pitches to support local businesses and return the small town physicians did not come true after the acquisition. The promises went by the rapids.

R7 reported:

I don't know. Don't know how these two would match. Don't know that community leaders could do anything in implementing transportation services at least from the township perspective, but from the county level, that might be something that will be doable.

R10 stated:

> People are so used to going out of this area for care. Something they grew up with. For genetic study among Amish population, build a center for the Amish outside of Belleville. The Amish are getting funding for that and this project might come to fruition in a couple of years.

R18 stated that CBR could help to create awareness for community issues/needs and leaders would be able to reach out to state representatives to effect change. R11 reported that CBR gets more access to peoples' opinions on where to add services. R14 said CBR could help to identify what problem others may be having with services provided.

Theme 30: Respondents do not want to participate in CBR. In terms of willingness to participate in CBR, a total of 46.2 percent of participants said that they are willing to talk to community leaders/residents to discuss ways of improving primary care access while the other 53.8 percent stated that they are not willing to talk to community leaders/resident because they do not have a lot of say at the local level.

MD1 reported:

> Not in a forum to talk about healthcare. People that have a say in how things are – Yes! Talk to them, educate them. Get people off drugs and mandating that employers do drug screening. Encourage work. It is inherently wrong that some people work and sacrifice and have high deductible plans and other people insist they can't work and have everything taken care of for them. They get meds free, radiographic studies for free. Soon the people who do the right thing and work decide it is easier to not work and get taken care of. Link employment with healthcare.

R19 stated: "No! There would be no benefit because they don't have input. It would be the hospitals and the primary care network are all run by their own board."

Other Concepts

In response to the final question - is there anything else you would like to tell me? R4 stated: "My personal experience accessing primary care in Brown Township has been easy. More than adequate for all health issues I have had. Although there is always room for improvement. Hopefully this study spurs that improvement." R7 reported:

> Thought provoking study and gave me a lot of things to consider. Very informative to that respect. Glad that you are doing it and hopefully this will be something that will help even in the transportation area or add to the services that are in the local area.

R15 stated that when people live in a rural area, they are aware that they have to drive a little because things are further away. R8 reported that it might be beneficial for the elderly if there was a physician or PA that actually would make house calls as used to be done 50 years ago. R12 added that there was no need to reinvent the wheel. He stated that leaders should just follow the lead of advanced Western European Nations healthcare systems. R14 reported: "I feel that there should be better programs for services and needs of retired residents that are on a fixed income, such as: treatment plans, dental and others." He stated that more care should be given to retirees. N3 reiterated that dental access was needed and that Katie's law should be implemented in township programs to help people with drug addiction. R10 stated that a dermatologist was needed in the Lewistown area where they go for primary care.

Emerging Themes/Data Coding

Following the use of NVivo to organize and code data, I began by closely reading/rereading text while taking into consideration multiple meanings inherent in the text. I then identified segments of texts that contain units of meanings, and created a label for each new category into which text segments were assigned (Creswell, 2002; Thomas, 2003). As more text were read, text segments were then added to the categories into which they belonged. From there, I developed an initial description of meaning of category by writing a memo about the category which was also linked to other categories in various relationships (Creswell, 2002; Thomas, 2003). Originally these segments of texts were categorized into 33 theme clusters and 149 themes. The categories were further condensed into 3 theme clusters and 30 core themes describing the phenomenon of interest. In order to show a greater understanding of participant experiences, the researcher employed Edward and Welch (2011) data analysis method which is an extension of Colaizzi's (1978) 7-step method of analysis in a recursive manner (see Table 4).

Table 4

Summary of Emergent Themes

Theme Clusters	Themes
Theme Cluster 1: Perceptions of Residents/Healthcare Providers Regarding Community Residents' Access to/Use of Primary Care Access in Mifflin County	Availability Themes Theme 1: Insufficient Community Health Centers Theme 2: Inadequate PCPs Theme 3: Use of ED as Source of Primary Care Theme 4: Long Appointment Wait times Theme 5: Limited Provider Choices Theme 6: Health Insurance Issues Theme 7: Limits on Medicaid Access Card Theme 8: Unmet Patient Needs Accessibility Themes Theme 9: Travelling Distances to Care Facilities Theme 10: Transportation Issues Accommodation Themes Theme 11: Appointment Scheduling Issues Theme 12: Special Needs of Amish Community Theme 13: Special Needs of the Elderly Affordability Themes Theme 14: High Deductibles and Copays Theme 15: Medication Cost Acceptability Themes Theme 16: Language Barrier Theme 17: Patients' Literacy Level Theme 18: Patient Behavior Theme 19: Patients' Lack of Self-Care in Chronic Illness

(table continues)

Theme Clusters	Themes
Theme Cluster 2: Perceptions of Residents and Healthcare Providers on How Access to and Use of Primary Care Services might be Increased in Mifflin County	Availability Themes Theme 20: Reform the Primary Care System Theme 21: Provide more Community Health Centers Theme 22: Hire more PCPs Theme 23: Employ the Services of NPs and PAs in Rural Areas Accessibility Theme Theme 24: Improve Transportation Accommodation/Acceptability Theme Theme 25: Educate Community Residents on Primary Care Access Affordability Theme Theme 26: Make Healthcare More Affordable Acceptability/Accessibility Theme Theme 27: Use Health Information Technology (EHR) to Coordinate Care Services
Theme Cluster 3: Perceptions of Residents/Healthcare Providers regarding CBR as a means of Improving Access to/Use of Primary Care Services among Rural Residents	Theme 28: CBR Improves Primary Care Access for Community Residents Theme 29: CBR Benefits Primary Care Consumers Theme 30: Respondents do not want to Participate in CBR

Connection to the Research Questions

In order to make sense of this gap in scholarly literature on the study phenomenon, I identified four research questions designed to not only serve as a guide for the study investigation, but also to structurally search for meaning through healthcare providers' and residents' lived experiences in Mifflin County. The following relates my study findings to the research questions by integrating emergent themes.

My first two research questions (RQ1: What are the perceptions of healthcare providers regarding community members' access to and use of primary care services in

Mifflin County? And RQ2: What are the perceptions of residents regarding access to and use of primary care services in Mifflin County?) helped me to describe the perspectives of study participants regarding primary care access and use of services provided. These questions allowed community residents as well as their healthcare providers to give a first person account of their experiences of the study phenomenon by describing their perspectives on the main challenges and barriers faced by rural residents that impedes access to primary care in Mifflin County. In order to promote accuracy in the data being generated, I bracketed out my notions and preconceptions about primary care access, thus enabling me to obtain, analyze, and describe data to accurately reflect participants' point of view (Husserl, 1931). The failure of the primary care system to provide a comprehensive patient – centered care is attributed to the many challenges and barriers facing it, ranging from insufficient community health centers, inadequate PCPs, use of ED as source of primary care, long appointment wait times, limited provider choices, health insurance issues, and other multidimensional factors. See summary of findings. There were no community health centers located in 7 of the 9 townships/boroughs visited. Residents in these communities had to go outside their townships and boroughs for primary and/or specialty care services and as such limited access to primary care (Theme Cluster 1: Research Questions 1 and 2).

The third research question (RQ3: What are the perceptions of residents and healthcare providers on how access to and use of primary care services might be increased in Mifflin County?) helped participants (healthcare providers and residents) to offer ideas for possible interventions that could help improve primary care access. Many

participant responses pointed to ideas for possible solutions to problems previously identified in research questions 1 and 2 as follows: reform the primary care system, provide more community health centers, hire more PCPs, employ the services of NPs and PAs in rural areas, make healthcare more affordable (see summary of findings) for other possible solutions identified. Refer to Appendix S for more details on participant proposed solutions. Participants stated that solutions offered could help to improve primary care access in Mifflin County (Theme Cluster 2, Research Question 3).

The fourth research question (RQ4: What are the perceptions of residents and healthcare providers regarding community-based research as a means of improving access to and use of primary care services among rural residents?) allowed participants to reflect on their perceptions regarding CBR as a tool to help improve access to/use of primary care services among rural residents. Participants were able to share their opinions on the role CBR plays in primary care access. In this study, CBR approach used was strongly supported by research participants as a way to improve primary care access among rural residents (Theme Cluster 3, Research Question 4).

Summary of Findings

The following key findings emerged from the study and is the first qualitative phenomenological study to the best of my knowledge to provide information on the lived experiences of healthcare providers/residents regarding community residents' access to and use of primary care services in Mifflin County. These key findings illuminate the main challenges and barriers to primary care access and offers ideas for possible

interventions that could help improve access to primary care. It also elucidates participant opinions on the role of CBR in primary care access.

Theme Cluster 1

Insufficient community health centers. Participants reported that there were no community health centers available in seven of the nine communities in Mifflin County. Residents of these communities had to travel many miles outside their communities for primary and or specialty care services. Only Brown and Union townships had local health clinics and a few hospitals nearby. Study participants asserted that there were 3 major access points of care for residents in Mifflin County and that many of these practices were outside their communities thus, impacted access to primary care. Participants suggest having more Convenient Care Centers located within Mifflin County communities to improve primary care access (Theme Cluster 1: RQs 1 and 2).

Inadequate PCPs. Participants stated that there were inadequate PCPs available to meet the needs of patients. They asserted that available physician slots were often overfilled or overbooked and that specialty services were also difficult to access. They stated that appointments took several weeks for patients to be scheduled and those that visited EDs experienced long waits. Participants offered suggestions that leaders could employ the services of Nurse Practitioners and Physician Assistants to ease physician burnout and attrition and help reduce physician – patient ratio. Participants also added that since inadequate physician supply in rural areas impact the quality of care received, leadership should provide attractive benefit packages to motivate PCPs to work in rural areas (Theme Cluster 1: RQs 1 and 2).

Use of ED as source of primary care. Participants stated that residents preferred to use ED as source of primary care due to one of many factors such as: Healthcare cost, distances to care facilities, no after-hour services, lack of knowledge, appointment scheduling issues, long wait times, convenience, inadequate transportation services and accessibility issues. When the healthcare system fails to provide easily accessible, culturally competent, timely, quality primary care, residents are bound to utilize other options for primary care. Participants suggest providing cost effective primary care services and education to help curb this problem (Theme Cluster 1: RQs 1 and 2).

Long appointment wait times. Participants reported that residents experience long wait times as it took several weeks for patients to be scheduled for appointments. They also said that specialty services were difficult to access due to large turnaround of physicians in the area. Participants suggest that leaders hire more quality care providers to meet patients' demand for services (Theme Cluster 1: RQs 1 and 2).

Limited provider choices. Respondents stated that most communities had just one major provider (Geisinger) which limited their choices. They said that Geisinger "Red Tape" procedure interfered with the ease of getting approval for services needed by patients. Participants reported that if a patient uses out-of-network providers to overcome this problem, that patient would be responsible for the out-of-pocket costs. Respondents suggest that increasing provider choices could also increase access to primary care. They acknowledged that a good place to start would be to accept residents' health insurance at all care facilities (Theme Cluster 1: RQs 1 and 2).

Health insurance issues. Most participants agreed that those with poor insurance

were greatly affected by health insurance issues. Participants reported that while some residents gave up treatment due to high healthcare costs, some others delayed or skipped care entirely, thus making their chronic disease conditions much worse. Participants suggest making healthcare more affordable for community residents as this also addresses the financial factors impeding primary care access. They also suggest ridding the healthcare system of loop holes that prevent patients from getting the care that they need (Theme Cluster 1: RQs 1 and 2).

Limits on Medicaid access card. Participants stated that dentists did not accept new patients with Medicaid Access Card who then sought out other providers far away. Such patients presented at their Convenient Care Centers with dental caries and abscessed teeth. Participants suggest that combating this issue would require that providers accept patients' insurance at all care facilities and for providers who participate in the Medicare program accept Medicare payments as payment in full (Theme Cluster 1: RQs 1 and 2).

Unmet patient needs. Participants agreed that services like dermatology, urology, pediatric orthopedist, internal medicine were difficult to access due to provider shortages. Participants suggest hiring more providers and providing them with attractive benefit packages to entice them to stay (Theme Cluster 1: RQs 1 and 2).

Traveling distances to care facilities. Most of the respondents agreed that some form of traveling was required to access primary care services in Mifflin County. They claimed that residents sometimes commuted long distances of up to (31/2 hours) or 60 miles in search of treatment services. Participants suggest building care sites a little closer to where people live in rural communities (Theme Cluster 1: RQs 1 and 2).

Transportation issues. Majority of study participants agreed that transportation remained a big issue that impeded access to primary care in Mifflin County – particularly for the elderly and Amish population groups, and those without their personal owned vehicles. Participants suggest setting up a van system to help ease transportation difficulties (Theme Cluster 1: RQs 1 and 2).

Appointment scheduling issues. Participants agreed that patients experienced scheduling difficulties that caused delays in receiving primary care services. Sometimes, specialty services took as long as five months to be scheduled thus, forcing patients to choose other options like ED and urgent care. Participants suggest not using call centers to schedule appointments, but rather give patients the opportunity to place calls directly to the physician's office or clinic which increases patient satisfaction (Theme Cluster 1: RQs 1 and 2).

Special needs of Amish community. The Amish are a group of traditionalist Christians scattered all across Mifflin County. Most participants agreed that their communities have a considerable number of Amish people who experienced difficulties accessing primary care. Participants suggest fund raising to help build a clinic for the Amish and provide them with transportation to and from clinics (the Amish ride buggies). Respondents also suggest educating the Amish about available resources in the community (Theme Cluster 1: RQs 1 and 2).

Special needs of elderly. Most of the respondents agreed that their communities have a lot of elderly patients who need help with transportation to and from appointments. Elderly patients are often on a fixed income and may benefit from low cost

or free medicines. Participants suggest that leaders ease the burden of transportation by setting up a van system and providing public housing for the elderly. Participants also suggest that paramedics check in on the elderly as used to be done many years ago (Theme Cluster 1: RQs 1 and 2).

High deductibles and copays. Most participants in my study agreed to have had some form of copays or deductibles when they visited their doctors during times of illness. Participants suggest making healthcare more affordable and to increase provider choices to help improve access to primary care (Theme Cluster 1: RQs 1 and 2).

Medication cost. Most participants agreed that medication cost was too high for rural residents. This spike in the cost of medicine forced a patient to quit taking her insulin shots because she had no prescription overage. Residents suggest finding ways to contain cost through provisions of low cost or free medicines, especially for those who cannot afford (Theme Cluster 1: RQs 1 and 2).

Language barrier. Some participants stated that language barrier impacted the quality of primary care received – particularly the Amish who do not follow doctor's recommendations. Participants suggest that doctors speak slowly and avoid the use of medical jargons. They also urged providers to ask the patient to repeat back important information to ensure that they understand (Theme Cluster 1: RQs 1 and 2).

Patients' literacy level. In my study, participants agreed that patients' health literacy level could interfere with the quality of care received. Particularly that illiterate-low socioeconomic residents with poor insurance are less responsive to primary care providers than their well-to-do counterparts. Participants suggest that doctors speak

slowly, avoid the use of medical terminologies and have patients repeat back important health information to make sure that they understand. Participants also advocated for education to help people make informed decisions about their care (Theme Cluster 1: RQs 1 and 2).

Patient behavior. While most participants agreed that providers were accommodating and responsive to their needs, some other participant stated that patients who were blackballed by the doctor due to inappropriate behavior had to seek care elsewhere. Another participant stated that healthcare providers were more receptive to patients when they are not abusing prescription or narcotic drugs and added that such poor patient/provider relationships impacted access to primary care. Participants suggest educating both patients and healthcare providers (Theme Cluster 1: RQs 1 and 2).

Patients' lack of self-care in chronic illness. Participants agreed that patients sometimes do not always take ownership of their chronic disease and waited until very sick before seeking medical attention, thus worsening their chronic disease conditions. Respondents suggest the need for patient education on the importance of self-management to help improve people's health and well-being (Theme Cluster 1: RQs 1 and 2).

The third research question (RQ3: What are the perceptions of residents and healthcare providers on how access to and use of primary care services might be increased in Mifflin County?) led to the following solutions offered by research participants.

Theme Cluster 2

Reform the primary care system. Though a participant (MD1) stated that having a single payer system ensures that everyone stays covered; he advocated for encouraging MD's to be independent because it increases patient choice and decreases cost. However, MD2 on the order hand suggested having a universal healthcare system as in every other major modern democracy (Theme Cluster 2: RQ3).

Provide more community health centers. There were no community health centers available in most Mifflin County communities. Residents of these communities had to travel many miles for primary and/or specialty care services. Only two townships (Brown and Union) had local community health centers and a hospital nearby. Participants suggest providing more community health centers to help improve community residents ability to access primary care services (Theme Cluster 2: RQ3).

Hire more PCPs. There were limited or no PCPs available to meet the needs of patients. Available physician slots were often overfilled or overbooked. Specialty services were also difficult to access and it took several weeks for residents to be scheduled for appointments. Participants suggest hiring more physicians to help ease physician burnout and attrition (Theme Cluster 2: RQ3).

Employ the services of NPs and PAs in rural areas. Participants agreed that hiring more PAs and NPs could reduce patient-provider ratio and ease physician workload (Theme Cluster 2: RQ3).

Make healthcare more affordable. Many residents of Mifflin County lacked health insurance while those with insurance were plagued with high deductibles and

copays. Medication cost was noted as one of the main challenges residents had to deal with in Mifflin County. Participants suggest making healthcare more affordable to reduce the burden of cost on primary care consumers (Theme Cluster 2: RQ3).

Improve transportation. Participants agreed that transportation was especially difficult for the elderly and Amish and suggests setting up a van system to ease transportation issues to get people to and from doctor's offices (Theme Cluster 2: RQ3).

Educate community residents about primary care access. Participants agreed that education was important as it provides people with the information that they need to make better health decisions and for physicians to be better equipped to treat drug abuse (Theme Cluster 2: RQ3).

Use health information technology to coordinate care services. A participant (R9) from my study stated that it would be great to have a medical center satellite to the hospital in order to help improve primary care access, as JC Blair's Convenient Care Center sometimes has a doctor and other times does not (Theme Cluster 2: RQ3).

The fourth research question was "RQ4: What are the perceptions of residents and healthcare providers regarding CBR as a means of improving access to and use of primary care services among rural residents?"

Theme Cluster 3

CBR improves primary care access for community residents. Most participants agreed that CBR could help to improve access to primary care services (Theme Cluster 3: answers RQ 4).

CBR benefits primary care consumers: About half of study participants stated that it was beneficial to talk to community leaders/residents to discuss ways to improve primary care access (Theme Cluster 3: answers RQ 4).

Respondents do not want to participate in CBR. Some participants pointed out that community leaders/residents do not have a lot of say at the local level and would not be willing to participate in CBR (Theme Cluster 3: answers RQ 4).

Chapter 4 has reiterated the research paradigm, research methodologies, strategies and design used in the study, including procedures, participants, data collection tools, data collection and analysis methods, plus data credibility issues. Grouped by theme, I presented findings that provided insight into the experiences of Mifflin County residents as well as their healthcare providers regarding residents' access to and use of primary care services; and the potential for CBR to promote access and use of services provided.

Results from this study also illuminated the main challenges/barriers to primary care access and provided ideas for possible interventions that could improve primary care access/use in Mifflin County communities. The research design for this study utilized an emergent, exploratory, inductive phenomenological approach that was analyzed largely through qualitative methods using descriptive narratives of participant experiences. Chapter 4 is concluded by merging study results with research questions to focus findings and provide explanation as to how Mifflin County residents and their healthcare providers experience residents' access to primary care/how that understanding impacts their use of services provided, and the potential for CBR to effect a positive social change. Chapter 5 provides the discussion of study results, described under specific

themes that could help to translate the philosophy into actual practice.

Evidence of Quality

Prior to returning to respondents to validate my findings, I sought inter-coder reliability of data from a second coder by asking her to code approximately (20%) of the transcribed data using Penchansky and Thomas's (1981) model of healthcare access as conceptual framework and Edward and Welch's (2011) extension of Colaizzi's seven-step method, to organize formulated meanings into clusters of themes. To identify potential weaknesses and discrepancies in my data interpretation and analysis, I compared my results with the second coder the various theme clusters developed by us using NVivo. Theme clusters were adjusted based on discussions with the second coder as I deemed fit.

Credibility was ensured through member checking in the final stage of the interviewing process, where interviews transcripts were referred back to the participants for validation to determine if they found the findings to be accurate (Moustakas, 1994; Streubert & Carpenter, 2011). Seven of the 10 participants returned transcripts with minor clarifying edits, which the researcher incorporated. These revisions represented informant feedback (Miles & Huberman, 1994). Three more participants affirmed there were no changes while the remaining three participants did not respond to the member check request. As part of investigator triangulation and to further mitigate inadvertent researcher prejudices, crucial omissions, inaccurate interpretations and failure to identify all of the important themes, peer reviews of transcripts and emergent analyses and findings were debriefed and discussed with colleagues who are experts in qualitative

phenomenological approach and professionally familiar with the topic studied (Kumar, 2012; Noble & Smith, 2015; Polit & Beck, 2010).

In this study, dependability was ensured through an audit trail that was kept; and included data documentation, methods, and decisions made throughout the entire research process including the end product (Gibson & Brown, 2009; Schwandt, Lincoln, & Guba, 2007). A reflexive journal, which included a log of daily activities, thoughts and reflections regarding each step of the research process was included as part of the data in the audit trail. Transferability was ensured through thick descriptions of the research context, participants and methods used in such great detail that readers can judge for themselves whether the findings can inform their own context (Neo, Edward, & Mills, 2013).

Lincoln and Guba (1985) posit that a research study's trustworthiness is important to evaluating its worth. These authors assert that trustworthiness involves establishing:

- **Credibility** – confidence in the 'truth' of the findings
- **Transferability** – showing that the findings have applicability in other contexts
- **Dependability** – showing that the findings are consistent and could be repeated
- **Confirmability** – a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest (Lincoln & Guba, 1985).

Further, according to Trochim and Donnelly (2008), not only does the best description of quality in qualitative research is evidenced by the study's ability to prove its credibility, transferability, dependability, and confirmability, but also on

how well the results of the study approximate the truth. As a researcher, it was a calculated effort on my part to engage meaningfully with the data this way and judge the quality of my study results using aforementioned applicable concepts – since my research inquiry is grounded in a qualitative phenomenological tradition with interest in the lived experiences of the participants.

Confirmability and credibility exists and are established in this projects' study results and therefore, approximate the truth about resident/healthcare provider perspectives regarding residents' access to primary care; and the potential for CBR to serve as a medium for promoting the use of primary care services in Mifflin County.

As aforementioned, credibility and confirmability of my research results comes from participants making minor edits of interview transcripts through member-checking. Out of 10 interviewees, only four had minor edits of their interview transcripts, three left the transcribed content as is and the remaining three did not take part in member checking.

Another example of credibility in my study is the result of engagement with participants in an in-depth telephone interview format – long enough to build a rapport and earn their trust so they shared intimate experiences with me. For example, one participant described his challenges with psoriasis without access to a dermatologist. Another discussed the challenges faced by physicians in the management of patients with chronic pain. He said that doctors were being forced to deal with patients with chronic pain and asserted that referring patients to pain management doesn't help as the pain management physicians want to do the high cost procedures and then have the PCPs

manage the opiate medications. He asserted that PCPs have not been trained to deal with drug seeking behavior or opiate addiction. Yet another, shared the loss she and her family suffered (lost a nephew) to drug overdose. She hopes that Katie's law would be passed and implemented in township programs to help people with drug addiction. One final respondent opened up about their experiences with bone fracture. She said that her daughter broke her growth plate in elbow. But the local orthopedist never saw a break and instead referred her daughter to Hershey where she received the help she needed. She also told me that she broke her femur and was life flighted to Hershey Medical Center where she received the care she needed. The sharing of such private and personal experiences suggests that rapport was created long enough for them to share such truthful and painful experiences.

Confirmability of research results were evidenced by the similarity in themes identified between the second coder and the researcher using Penchasky and Thomas's (1981) five models of healthcare, we both identified travelling distances to care facilities and limits on Medicaid Access Card as themes. For a full report on 2nd coder's identified themes (refer to Appendix P).

The triangulation of data is another example of confirmability in my study results. I collected data from three participant pools (physician, nurse and resident) using two data collection instruments (interview and survey). The three groups of participants generally agreeing on the conditions associated with primary care access for Mifflin County residents further validated the data collected.

Dependability was ensured in this study through an audit trail of daily log activities that included thoughts and reflections regarding each step of the research process – in-depth methodological description to allow study to be repeated.

Transferability was ensured through thick descriptions of the research context, participants and methods used in sufficient detail that readers can judge for themselves whether the findings can inform their own context.

Chapter 5: Discussion, Conclusions, and Recommendations

In this qualitative phenomenological study, I explored how community residents and healthcare providers perceive residents' access to primary care services in Mifflin County, and I examined the benefit of using CBR to improve residents' access to and use of services provided. I was interested to see how (a) residents and healthcare providers perceive community members' access to and use of primary care services in Mifflin County, (b) residents and healthcare providers perceive how primary care services might be increased in Mifflin County, and (c) residents and healthcare providers perceive CBR as a means of improving access to and use of primary care services among rural residents.

This study offers relative insight for researchers, health executives, public health leaders, policy makers, physicians, practitioners of private practice, local health departments, health insurance providers, township board of supervisors, borough council members, community leaders, and Mifflin County residents. My intent for this research was not only for study findings to augment the body of knowledge surrounding primary care access but also to contribute new knowledge in the field and provide ideas for possible interventions that could improve primary care access for rural community residents.

The lived experiences of 26 research participants from nine townships and boroughs (Brown, Bratton, Kistler, Menno, McVeytown, Newton Hamilton, Oliver, Union, and Wayne) in Mifflin County, Central Pennsylvania were captured through in-depth telephone interviews and qualitative surveys with physicians, nurses, and residents. NVivo was used to organize and code data, originally categorized into 33 theme

clusters/149 themes and then further condensed into three theme clusters and 30 emergent themes. Edward and Welch's (2011) extension of Colaizzi's (1978) method was used to analyze data. This method was proficient in analyzing lived experiences and in a natural setting where primary care access issues are prevalent. Chapter 5 combines the literature and findings as they relate to the specific themes in Chapter 4. In Chapter 5, I also discuss a summary of results, limitations, recommendations for practice, and make a case for future research.

Summary of Key Findings

The following key results emerged from the study and encapsulates the lived experiences of healthcare providers and residents regarding community residents' access to and use of primary care services in Mifflin County. The results identify the main challenges and barriers to primary care access, offer ideas for possible interventions that could help to improve primary care access and sought the opinion of research participants on the role of CBR in primary care access.

1. Insufficient community health centers limit accessibility to primary care services in Mifflin County as community residents must travel outside their townships/boroughs to receive primary and/or specialty care services (Theme Cluster 1: RQs 1 and 2).
2. Inadequate PCPs failed to meet patients' demand for services in Mifflin County as available physician slots were often overfilled and overbooked. This caused burnout and attrition in physicians from increased physician-patient ratio (Theme Cluster 1: RQs 1 and 2).

3. Community residents in Mifflin County use ED as source of primary care due to healthcare cost, distances to care facilities, no after-hour services, lack of knowledge, appointment scheduling issues, long wait times, convenience, inadequate transportation services, and accessibility issues (Theme Cluster 1: RQs 1 and 2).
4. Residents in Mifflin County experience long appointment wait times because primary care doctors are not readily available to take calls or accept new patients—in particular patients with mental health disorders (high anxiety) could wait as long as 5 months and have to beg for a sooner appointment (Theme Cluster 1: RQs 1 and 2).
5. Provider choices in Mifflin County are limited due to health insurance bureaucracies (Geisinger red tapes) that interferes with the ease of getting approval for services needed by patients (Theme Cluster 1: RQs 1 and 2).
6. Health insurance issues cause residents in Mifflin County to give up treatment due to high healthcare cost, delay or skip care preventative care, thus making their chronic disease conditions much worse (Theme Cluster 1: RQs 1 and 2).
7. As a result of limits on Medicaid access card, dentists do not accept new patients with Medicaid access card, who then must seek out other providers far away. Many of these patients seen at the Convenient Care Centers have decayed and abscessed teeth (Theme Cluster 1: RQs 1 and 2).
8. Traveling distances to care facilities hinder access to primary care as residents sometimes had to commute up to (3 1/2 hours) or 60 miles in search of treatment

services (Theme Cluster 1: RQs 1 and 2).

9. Transportation issues impede access to primary care in Mifflin County particularly for the elderly and Amish population groups (Theme Cluster 1: RQs 1 and 2).
10. Unmet patient needs emanated from difficulties experienced by residents because services like dermatology, urology, pediatric orthopedist, internal medicine (limited), cardiology, and psychiatry were not available to meet patients' needs (Theme Cluster 1: RQs 1 and 2).
11. Appointment scheduling issues cause delays in receiving primary care services (Theme Cluster 1: RQs 1 and 2).
12. Special needs of Amish community came from a lack of insurance, not having a place to go for primary care, and transportation issues (the Amish ride buggies). The Amish also do not follow doctor's recommendations and they go across the boarder to Mexico in search of cheaper healthcare (Theme Cluster 1: RQs 1 and 2).
13. Special needs of elderly come from transportation issues, needing public housing, medication cost, and living on a mixed income. Addressing these issues could help to improve access to primary care for elderly patients in Mifflin County (Theme Cluster 1: RQs 1 and 2).
14. High deductibles and copays make patients forgo treatment of chronic diseases and preventative care in Mifflin County (Theme Cluster 1: RQs 1 and 2).
15. Medication cost has been described as the main challenge for community

residents in Mifflin County. This spike in the cost of medicine forced a patient to quit taking her insulin shots because she did not have prescription overage (Theme Cluster 1: RQs 1 and 2).

16. Language barriers pose a unique challenge among Mifflin County residents and impacts the quality of primary care received. When patients do not understand doctor's recommendations, they are more likely not to adhere to it. MD1 stated that the Amish do not follow recommendations given by doctors (Theme Cluster 1: RQs 1 and 2).
17. Patients' literacy levels interfere with responsiveness towards care providers. MD stated that illiterate and low socioeconomic residents with poor insurance are less responsive to primary care services provided by members of the healthcare team (Theme Cluster 1: RQs 1 and 2).
18. Patient behavior (drug abuse, malingering, pretending to be disabled, blackballed by a doctor) impedes patient/provider relationships and can impact access to primary care (Theme Cluster 1: RQs 1 and 2).
19. Patients' lack of self-care in chronic illness leads to worsening of their chronic disease conditions as they wait until very sick before seeking medical attention (Theme Cluster 1: RQs 1 and 2).
20. Reform the primary care system to give a clear definition of what a primary care system should be.
21. Provide more community health centers to bring healthcare closer to where people live.

22. Hire more PCPs to meet patients' needs.
23. Employ the services of NPs and PAs in rural areas to reduce the workload of physicians.
24. Make healthcare more affordable to increase access to and use of primary care services.
25. Improve transportation to get residents especially the elderly and Amish population groups to and from appointments.
26. Educate community residents about primary care access to allow them to make informed decisions about their healthcare choices.
27. Use health information technology to coordinate care services. These were ideas for possible interventions given by research participants for improving primary care access in Mifflin County (Theme Cluster 2: RQs 3).
28. CBR improves primary care access for community residents. Most participants agreed that CBR could help to improve access to primary care services (Theme Cluster 3: answers RQ 4).
29. CBR benefits primary care consumers. About half of study participants stated that CBR was beneficial to primary care consumers (Theme Cluster 3: answers RQ 4).
30. Respondents do not want to participate in CBR. Some participants pointed out that they would not be willing to participate in CBR as community leaders and residents do not have a lot of say at the local level (Theme Cluster 3: answers RQ 4).

Interpretation of Findings

The categories for my interpretation of the findings are the following: perceptions of residents and healthcare providers regarding community members' access to/use of primary care services in Mifflin County (RQs 1 and 2), perceptions of residents and healthcare providers on how access to/use of primary care services might be increased in Mifflin County (RQ3), and perceptions of residents and healthcare providers regarding CBR as a means of improving access to and use of primary care services among rural residents (RQ4). RQs 1 and 2 were merged together to avoid redundancy.

Study participants' descriptions of their perceptions illuminated unique challenges and barriers faced by Mifflin County residents when trying to get medical help and this impeded their access to primary care services. My interpretations of their perceptions are described below.

Theme Cluster 1

Insufficient community health centers. According to Healthy People 2020, access to healthcare services is critical to good health for a variety of reasons including maintaining overall physical, social, and mental well-being, disease prevention, early detection and treatment of disease, quality of life, preventable death, and life expectancy (2015). Radley and Schoen (2012) have argued that where a person lives matters and influences their ability to obtain healthcare and the type of health services available to them (p. 3). Most of the participants from my study agreed that their communities lacked community health centers which forces them to travel many miles in search of primary and/or specialty care services. Savedoff (2009) stated that availability considers the

supply of healthcare services in terms of the amount and quality relative to the population's needs. Mifflin County is designated as one of the medically underserved areas in rural Pennsylvania due to the percentage of the population below poverty, the percentage of the older population, the mortality rate of infants, and the availability of PCPs (Lewistown Hospital et al., 2016). According to Taylor (2004) health centers must be located in federally designated medically underserved areas or serve federally designated medically underserved populations. Though Mifflin County is designated as a medically underserved area, many townships and boroughs visited did not have any CHCs located within their communities.

In order for rural residents to have sufficient healthcare access, necessary and appropriate services must be available and obtainable in a timely manner, yet rural residents often experience barriers to healthcare that limit their ability to obtain the care they need (Rural Health Information Hub, 2017). Similarly, I found that seven out of the nine townships and boroughs in Mifflin County (Bratton, Kistler, Menno, McVeytown borough, Newtown Hamilton borough, Oliver, and Wayne) did not have any CHCs available to them directly. Community residents received primary or emergency care outside their communities. Only Brown and Union townships had a clinic or two and a few hospitals nearby. The healthcare providers as well as residents in the study listed just three major access points of primary care in Mifflin County (Geisinger-Lewistown Hospital, Mount Nittany Medical Center, and Primary Health Network), plus a few independent physician practices which were also located outside their communities. Cham, Sundby, and Vangen (2005) stated that availability measures the extent to which

population health needs are met by available services. In Mifflin County, these needs are not being met due to the many issues illustrated above. Study participants call for more care site facilities to be located closer to where they live as this could help improve access to primary care.

According to Penchansky and Thomas (1981), availability refers to the relationship of the volume and type of existing services/resources to the clients' volume and types of needs. Health centers are unique among primary care providers for the array of enabling services they offer such as: case management, translation, transportation, outreach, eligibility assistance, and health education (Taylor, 2004). Because communities in Mifflin County are lacking CHCs, it may suggest that they are missing out on accessing these enabling services CHCs provide. Perhaps local and state departments of health could use data provided by this study to build a ground up model of healthcare that satisfies the expressed needs of Mifflin County residents.

Inadequate PCPs. The healthcare challenges facing rural areas is markedly different from that of urban areas. The healthcare delivery system in rural America is largely fragmented and its rural healthcare workforce stretched to its limits in most states, with higher rates of death, disability, and chronic disease in rural households (Cromartie, 2012). Similarly, my study found that the PCPs in Mifflin County were inadequate and the available doctors had their schedules over-booked. In Pennsylvania, the ratio of PCPs to population is (1,220:1) and that of Mifflin County is (2,027:1), which is above the state average (County Health Rankings and Roadmaps, 2016). These challenges are significant because approximately 51 million (1 in 6) people live in rural and frontier areas of the

country (Cromartie, 2012), yet there are shortages of PCPs and specialists in rural areas (Association of American Medical Colleges, 2012). To reduce inefficiencies and improve care for rural residents, state legislatures continually seek innovative ways to increase access to doctors and to better coordinate care (Cromartie, 2012). Similarly, I found that all participants agreed that primary/specialty care doctors were inadequate and could use the services of more healthcare providers to meet patients' needs. Further, physicians providing care in rural areas travel long distances to their places of assignment, often serving large geographic areas substantially underserved by hospitals and other healthcare facilities (National Conference of State Legislators, 2017). I also found that a lot of providers were not from small communities. This may suggest that PCPs do not live in close proximity to their places of work and traveling distances may worsen the strain already placed on PCPs, which supports why MD1 asserted that physicians do not want to work in rural areas.

Demographic trends such as the aging rural physician workforce and the growth in the rural elderly/near-elderly population will also increase demand for primary care services (National Conference of State Legislators, 2017). Similarly, my study revealed that there are more patients demanding services than there are PCPs able to meet patients' demand for those services. Chernow, Sabik, Chandra and Newhouse (2009) examined the relationship between primary care supply and healthcare spending growth between 1995 and 2005. Analysis of Medicare Part A and Part B costs per person for each of 306 Hospital Referral Regions in the United States showed that regions with higher primary care supplies had lower Medicare costs increases per beneficiary (Chernow et al., 2009).

According to Mandal (2014), without a regular healthcare source, people have more difficulty obtaining their prescriptions and attending necessary appointments. My study found that physician burnout and attrition reduces the likelihood of forming relationships long enough for rapport to be created between patient and provider. This could also impede access to/use of services provided. The Tajistan study conducted by Fan and Habibov (2009) found that the availability of qualified healthcare providers was a determining factor for healthcare use. My study found provider shortages was one of the main challenges that impacted access to primary care and use of services provided.

A recent study examined patients with colorectal diagnosis of cancer between (1994-2005) in the Surveillance, Epidemiology and End Results (SEER) Medicare linked database. Findings revealed a positive association between colorectal cancer outcomes and primary care utilization (Ferrante et al; 2011). Ferrante et al. (2011) examined the number of primary care visits before and after diagnosis within this population. The authors found that people who visited a primary care physician were more likely to receive cancer screenings and therefore had lower mortalities for both colorectal and all-cause mortality (Ferrante et al; 2011). This meant that individuals with 5 to 10 visits had (16%) lower colorectal cancer mortality (adjusted hazard ratio [AHR], (0.84; 95%CI, 0.80-0.88) and (6%) lower all-cause mortality (0.92;0.91-0.97) compared to persons with zero or one visit (Ferrante et al; 2011). From the evidence above, it can be deduced that adequate supply of PCPs in a given healthcare system could help improve patients' health outcome and wellbeing. In Mifflin County communities where primary/specialty care doctors were either inadequate or absent may suggest that they are also likely to

experience poorer health outcomes. Healthcare leaders might want to consider providing attractive physician benefit packages to pool doctors to want to work in rural areas and hire other healthcare workers (like NPs and PAs) to assist PCPS well enough to meet patients' demand for services. The lack of or inadequate PCPs in Mifflin County might be impacting access to primary care and use of services provided and therefore worth looking into.

Use of ED as source of primary care. EDs have long served as the safety net for medically underserved patients, particularly adults with Medicaid and patients without health insurance (Tang, Stein, Hsia, Maselli, & Gonzales, 2010). Similarly, my study found that residents with inadequate/poor insurance were those reported as using the ED as their primary healthcare source. Survey and insurance encounter data suggest that many Medicaid patients chose the ED because the healthcare system has failed to provide easily accessible, culturally competent, timely, and quality primary care (Weisz, Gusmano, Wong, & Trombley, 2015). These authors stated that this would include urgent care appointments with PCPs during daytime hours, the availability of same-day appointments, access to after-hours care, a means for urgent communication with a primary care physician, and convenient access to laboratory and x-ray testing (Weisz et al., 2015). Similarly, some participants from my study reported that dentists did not accept new patients with Medicaid Access Card, so many of these patients delayed their care or skipped preventive treatment services entirely. This worsened their chronic conditions as many of these patients seen at their convenient care centers presented with dental caries or severely abscessed teeth.

The Centers for Disease Control and Prevention (2012) report cited a National Health Interview Survey that found that almost (80%) of adults who went to EDs over a twelve-month period did so due to lack of access to other healthcare providers (Doyle, 2013). Similarly, my study revealed that patients who were unable to access their regular doctor's office due to lack of after-hours or weekend services, went to urgent care or the ER. This issue raises some legitimate concerns because when patients become serial ED visitors, hospitals could become quite easily overwhelmed, and patients with true emergencies may be left unattended in the waiting room of the ED behind those with much less threatening conditions like a sore throat or cough (Doyle, 2013). Many hospitals have devised ingenious ways to overcome non-urgent ED visits by establishing charitable service programs like medical homes or other healthcare options that provide for the uninsured or underinsured; with the hopes of keeping these ED addicts from visiting repeatedly and needlessly (Doyle, 2013). In 2009, Geisinger-Lewistown hospital's (one of the 3 access points of care) mentioned in my study, reported that patients' ED visits in Mifflin County saw a (20%) overall spike as well as an increase in both urgent/non-urgent types of visits (Lewistown Hospital et al., 2016). The hospital's bad debt and charity care totaled ($3,758,122.00) in 2012 (Lewistown Hospital et al., 2016).

Besides ED visits, there are safety net options (health centers) partially funded by Health and Human Resources (HHS) which offers primary healthcare services like: preventive, diagnostic, treatment, and emergency services, as well as referrals to specialty care for patients regardless of the ability to pay (Doyle, 2013). Case management and

transportation services which help patients access care are also provided for by these health centers. However, my study showed that 7 out of the 9 townships/boroughs visited in Mifflin County communities do not have community health centers and may be missing out on the services provided for by these health centers. Further, Mifflin County residents may not be aware that such services even exist or know where to find them, hence the question of education comes into play. Education would enable community residents to stay informed about their health and healthcare needs. My study showed that participants were interested in gaining knowledge through education regarding primary care access. Perhaps, community residents in Mifflin County could benefit from educational programs and services geared towards informing community residents on available resources in the community. These issues call for immediate attention by local and state government officials, health departments, legislators, and community leaders to take action and provide rural residents with a comprehensive, culturally competent, patient-centered care that they need.

Long appointment wait times. Patient waits have been a long-standing concern in healthcare (Brandenburg, Gabow, Steele, Toussaint, & Tyson, 2015). Similar problems exist throughout the United States healthcare systems like prolonged wait times, scheduling difficulties, and an imbalance of supply and demand present in both public and private healthcare sectors (Brandenburg et al., 2015). Prolonged wait times and access deficiencies also negatively impacted providers and staffs alike. Although, often not acknowledged, the inefficiencies that exist throughout healthcare have been found to contribute to the high level of dissatisfaction among providers and burnout in primary

care (Sinsky et al., 2013). Similarly, my study found that the schedules of PCPs in Mifflin County were often overfilled and overbooked causing prolonged wait times for patients and dissatisfaction among patients.

The Institute for Healthcare Improvement (2017), reported that recalibrating the system involved understanding the balance between demand and supply, as well as understanding the system's dynamics to improve on appointment wait times. That meant getting rid of all the backlog – likened to draining a lake or emptying a warehouse (IHI, 2017). The concern about long wait times was that limited and delayed access could lead to undesirable results, as people could either seek more expensive care at emergency rooms, delay care too long, or not seek care at all (Massachusetts Medical Society, 2013). Similarly, patients in Mifflin County resorted to using the ER from their inabilities to get appointments in time. Though, my study showed that appointment scheduling times for primary care was same day and timely, specialty care was about a 2 to 3 week wait while mental health services took longer, with a wait time of about 3 to 5 months. This is significant and consequential because a participant from my study asserted that mental health patients do not receive prompt treatments because there were no doctors available in the area. This, I found to be very troubling. In the state of Pennsylvania, it has previously been reported that fewer people received mental health treatment than expressed need of it, and that a local trending data from 2010-2014, showed that major depressive episodes among adolescents were on the rise (Lewistown Hospital et al., 2016). Further, the Mifflin County suicide rate at 14.3 percent was above the state average (Lewistown Hospital et al., 2016). Perhaps, spreading best practices in

scheduling and access may help to reduce professional and team frustrations, and help to rekindle patient satisfaction and trust in healthcare delivery (Brandenburg et al., 2015).

Limited provider choices. Differences in access to healthcare across different populations is the main reason for existing disparities in healthcare provision (Mandal, 2014). The Pennsylvania Department of Health (2012) reported that individuals living in rural communities have higher rates for cancer, obesity, heart disease, and diabetes, and that children and nonelderly adults living in rural communities are also more likely to be uninsured. In Mifflin County, 14 percent remains uninsured (Lewistown Hospital et al., 2016). Racial and ethnic minorities are often given a health insurance plan that limits the amount of services available to them as well as the number of providers they can use (Mandal, 2014). My study found that most of the townships/boroughs visited in Mifflin County communities had just one major provider (Geisinger) which limited their choices. Also, participants sated that Geisinger red tapes procedures (unnecessary rules and regulations) delayed patients from obtaining the treatment services they need which impacted access to healthcare. Most participants agreed that if patients were to use out-of-network providers to overcome Geisinger red tape procedures, those patients would be responsible for the out-of-pocket costs. Perhaps this indicates that Mifflin County residents want leaders in positions of power to provide them with more provider options to choose from to suit their individual and family needs. Also, medical doctors should be encouraged to become more independent as this would reduce costs and increase patient choice.

Health insurance issues. According to Healthy People 2020 (2017), individuals without health insurance are likely to skip routine medical care due to high healthcare costs, thus predisposing them to more serious and debilitating health conditions. Similarly, my study found out that residents without insurance or those with poor insurance either delayed their care or gave up treatment and preventative care, thereby worsening their chronic conditions. According to Savedoff (2009), affordability addresses the financial factors that can facilitate or obstruct getting necessary healthcare services. Many participants in my study asserted that those with adequate insurance had no difficulty accessing care but that the uninsured or those underinsured experienced great difficulty accessing care. Previous studies have reported that there was a larger percentage of rural residents not covered by health insurance compared to their urban residents (Bennett, Olatosi, & Probst, 2008). In Mifflin County, 14 percent of residents are not insured (Lewistown Hospital et al., 2016). My study similarly found that many residents in Mifflin County remained uninsured or underinsured.

Further, healthcare is so important in human experience that sometimes it literally dictates between life and death (MacKinney et al; 2014). My study findings also elucidated Mifflin County as one of the poorest in Pennsylvania and showed that cost was one of the main challenge impacting primary care access. According to Agency for Healthcare Research and Quality (2016), robust primary care is the cornerstone of an efficient and effective healthcare system based on prevention, chronic disease management, and coordinated care. In Mifflin County, the leading causes of death are cancer, stroke and heart disease (Lewistown Hospital et al., 2016). Perhaps this suggest

that many residents in Mifflin County might not be receiving the primary care services that they need due to healthcare costs.

Limits on Medicaid access card. A new study by the Office of Inspector General for the Department of Health and Human Services found half of all providers listed in Medicaid managed care plan are not available to new Medicaid patients, either because they are not at the listed location or they are but are not accepting new Medicaid patients (Artz, 2015). Similarly, my study found that in Mifflin County, dentists did not accept new patients with Medicaid Access Card, who then must seek out other providers very far from their communities. Many of these patients end up with dental caries or abscessed teeth from delaying their care or skipping on preventative healthcare. According to Artz (2015), for doctors who are accepting new Medicaid patients, the average wait times to get an appointment was two weeks, with a quarter of patients having waits of one month or longer. Previous studies have found that primary care providers were harder to get an appointment with than specialists, but that wait times for specialists were typically longer (Artz, 2015). However, my study found that primary care was usually the same day and timely but getting an appointment with a specialist was usually longer (about 2 to 3 week wait) and mental health services (a 3 to 5-month wait). Participants in my study agreed that in order to combat access issues, providers need to accept patients' insurance at all facilities.

According to The Network for Public Health Law (n.d), states typically set Medicaid provider payment rates below – sometimes substantially below – comparable to Medicare or private insurance rates, and this discourages provider participation. One

participant in my study (MD2) reported that Geisinger who took over their local hospital was not participating with multiple Medicare Advantage Plans such as: Senior Blue and Freedom Blue. He added that United Healthcare was also a major challenge for many elderly patients in Mifflin County. Additionally, in tight budget times, states often resorted to additional rate cuts, thus exacerbating the rate disparity and further reducing providers' willingness to take Medicaid (The Network for Public Health Law, n.d). Similarly, my study found that providers – specifically dentists did not accept patients with Medicaid Access Card. Another participant asserted that Medicare had risen to the point that PCPs are unable to start up in rural areas. These issues should be taken very seriously and healthcare leaders position themselves to find ways to address these problems. Also, two case reports on state Medicaid populations, indicated that increases in primary care utilization are associated with improved health outcomes and cost savings (Rhode Island department of Health, 2012). This perhaps suggest that increasing providers and requiring healthcare providers who participate in the Medicaid program to accept Medicaid payments as payment in full could help improve access in Mifflin County.

Unmet patient needs. According to Savedoff (2009), availability considers the supply of healthcare services, in terms of the amount and quality relative to the population's needs. Cham, Sundby, and Vangen (2005) also stated that availability measures the extent to which population health needs are met by available services. Previous studies have reported that unmet healthcare needs emanating from access barriers, results in delays in receiving appropriate care, hospitalizations that could have

been prevented as well as the inability to get preventive services (Healthy People 2020, 2012). Similarly, my study found that many healthcare services like dermatology, urology, limited internal medicine, dental, pediatric orthopedics, cardiology and mental health services (psychiatry) were mostly unavailable in Mifflin County communities cause delays in receiving those services. One very troubling statement was made by one of my study participant (R12) in particular and reads: “When you are crying plus high anxiety, you have to beg for an appointment. No real choice of doctor in our area.” This was very concerning to me. As the number of people with mental health disorders continue to rise in the county, perhaps, unmet patient needs indicate that there are unique challenges to delivering healthcare services in Mifflin County. This pressing need signals for hospitals/clinics to find ways in overcoming these challenges and strive towards providing a comprehensive and culturally competent healthcare across rural populations. According to MacKinney et al. (2014) population health is contingent on individual productivity and societal progress. Thus, access to healthcare is critical to society, ensuring optimal health, productivity and wellbeing (Mackinney et al; 2014).

Traveling distances to care facilities. Clark and Coffee (2011) reported that accessibility can be defined as the ease of approach from one location to another measured in terms of distance traveled, the cost of travel, or the time taken. Grzybowski, Stoll, and Kornelsen’s (2011) Canadian study on the role distance played in the use of healthcare services among rural residents, concluded that rural women in labor were more likely to experience adversities in perinatal outcomes if they had to commute long distances to access maternity care.

Hiscock et al.'s (2008) study in New Zealand, revealed an inverse relationship between travel time, access and utilization of general practitioners and pharmacies. Most participants in my study agreed to have traveled some distances outside their communities for primary and or specialty care services. My study equally found that Mifflin County residents expect to drive reasonable distances (15-20 miles or more) to reach hospitals/clinics when residing in rural or farming communities. They claimed that it was something they grew up with. However, participants also agreed that distances played a role in access and impacted use of services provided in Mifflin County. Perhaps having care sites located within communities and closer to where people live might help to overcome this problem.

Transportation issues. The lack of reliable transportation is a barrier to care (Rural Health Information Hub, 2014). Gage and Guirlene's (2006) study highlighted the importance of accessibility in Haitian women's use of maternal healthcare. The authors found that transportation problems reduced the likelihood of a great number of women being delivered in the hospital or birthed by trained medical personnel, and increases if the neighborhood has an antenatal care provider present in the community. Rural communities have more elderly residents who suffer from chronic conditions that may require multiple visits to healthcare clinics. Conversely, multiple trips require a reliable source of transportation (Rural Health Information Hub, 2014). Similarly, my study found that residents in Mifflin County have a high number of elderly/Amish population groups within their communities who found it difficult getting to and from appointments. This, confirms one of the indices of medical underservice which is (having a high elderly

population), as Mifflin County is designated as a medically underserved area (MUA) in rural Pennsylvania. Since residents particularly the elderly and Amish in Mifflin County experience difficulties to and from appointments, perhaps leaders may want to set up a van system which could benefit these population groups and thus improve access to primary care.

Appointment scheduling issues. Primary and specialty care clinics utilize appointment scheduling systems to manage access to service providers, and by hospitals to schedule elective surgeries (Gupta & Denton, 2006). Appointment systems' performances are affected by many factors such as: arrival and service time variability, available information technology, patient/provider preferences, and the experience level of the scheduling staff (Gupta & Denton, 2006). My study elucidated that provider shortages mostly affected scheduling issues in Mifflin County. Participants reported that since doctor's schedules in Mifflin County were overfilled and overbooked, it took several weeks or more for patients to be scheduled for appointments. Patients affected by these circumstances were forced into options like going to the ER or urgent care. The scheduling problem and access is further complicated by the lack of clear, evidence-based standards for appropriate wait times for both routine primary and specialty care (Brandenburg et al., 2015). Perhaps, spreading best practices in scheduling and access may help to reduce professional and team frustration, and rekindle the satisfaction and joy in healthcare delivery (Brandenburg et al., 2015).

Special needs of Amish community. The Amish are scattered all across Mifflin County communities. According to Ems (2014), the Amish are known to be reluctant to

disclose themselves to strangers and have limited use of technology (Ems, 2014). My study found that the Amish lived within Mifflin County communities and kept to themselves. My study found that the Amish needed a facility to go for primary care and also needed help with transportation (the Amish ride buggies). Though my research elucidated that the Amish were building a clinic for themselves through fundraising to achieve that goal, my study equally found that that clinic was yet to be completed. Perhaps, the Amish could benefit from government assistance to complete the clinic and offer the Amish a place where they could go for primary care. Further, my study found that the Amish needed education on financial assistance available for the uninsured or low insured members of Mifflin County community. Since the Amish were reported to go across the boarder to Mexico in search for cheaper healthcare suggest that they might be experiencing a lot of difficulties with finances. Financial factors were listed as one of the main challenges impeding access to primary care. Healthcare programs should be directed at addressing these issues.

Special needs of the elderly. According to Mandal (2014), older people are more likely to experience transport problems or suffer from a lack of mobility – factors that can impact on their access to healthcare. Similarly, my study found that elderly groups in Mifflin County experienced transportation difficulties to and from appointments. Study also revealed that the elderly needed help with paying for their medications which were often very expensive. Not only does Mifflin County communities have a lot of elderly population groups living on a fixed income but also, some were reported as needing public housing. Participants suggested that paramedics check in on them as used to be

done several years ago. This could mean that elderly population groups in Mifflin County might benefit from public health programs designed specifically to meet their unique needs.

High deductibles and copays. Research shows that though co-payments lead people to reduce their use of medical care, it does not necessarily make the person a smarter healthcare consumer (Mental Health America, 2017). In fact, patients reduce their care for both essential and less-essential services when higher co-payments are imposed (MHA, 2017). Similarly, my study elucidated that patients with high deductibles and copays sometimes forgo treatment of chronic diseases and preventative care. Though, my study found that the main challenge affecting primary care access was cost, the issue of no competition among medical doctors was also raised as an important factor to look at. Perhaps residents who are unable to pay for healthcare due to high deductibles and copays in Mifflin County might benefit from safety-net options that offer primary healthcare services regardless of their ability to pay. Further, medical doctors should be encouraged to be independent as this reduces cost and increases patient choice.

Medication cost. Medication costs represent a significant portion of patient out-of-pocket costs. There is ample research to show that even modest increases in cost sharing will have a negative effect on beneficiaries' use of healthcare services (Mental Health America, 2017). Medicaid costs then increase due to untreated conditions and worsening conditions, which result in the need for more expensive forms of care, such as emergency room treatment or hospitalization (MHA, 2017). My study found that the biggest challenge to primary care access in Mifflin County was cost. This was such a

huge challenge that PCPs were unable to start up in rural areas due increases in Medicare cost. Further, medication costs in Mifflin County forced a patient to quit taking her insulin shots because she had no prescription coverage. This suggest that patients who are unable to pay for their medicines may benefit from reduced or free medication programs.

Language barrier. Barriers resulting from language, isolation, and cultural differences often limit access to healthcare and reaching these underserved communities often requires specialized interventions (National Institutes of Health, 2013). Poor English language skills can make it difficult for people to understand basic information about health conditions or when they should visit their doctor (Mandal, 2014). Similarly, my study found that language barrier impacted primary care access in Mifflin County. Participants urged healthcare providers – physicians in particular to desist from using medical terminologies, speak slowly and ensure that patients repeat information back to the physician before leaving their office. Previous research has reported that language barriers could have deleterious effects (Flores, Laws, Mayo, et al. 2003., Flores, 2005). Patients who face such barriers are less likely than others to have a usual source of medical care; receive preventive services at reduced rates and have an increased risk of non-adherence to medication (Flores, 2006). Similarly, my study also found that the Amish in Mifflin County do not follow doctor's recommendations. Perhaps, the Amish and other individuals who experience language barriers might benefit from having practitioners of same origin as providers or have an interpreter present to convey information in the language they can understand.

Patients' literacy level. According to Agency for Healthcare Research and Quality (2014), limited health literacy is associated with a decreased likelihood of using preventive health services and a greater likelihood of medication errors and poor health status. My study elucidated that there is a 15 percent or higher illiteracy level among the Amish who also do not follow doctor's orders. Within a universal health insurance system in which physician reimbursement is unaffected by patients' socioeconomic status, people presenting themselves as having high socioeconomic status received preferential access to primary care over those presenting themselves as having low socioeconomic status (Olah, Gaisano, & Hwang, 2013). My study found that well-off, educated and literate individuals were reported as more responsive to care providers than their low socioeconomic illiterate counterparts with poor insurance. Perhaps residents could benefit from having practitioners of same origin as providers or have an interpreter present to convey information in the language they can understand. Residents might also benefit from education which was one of the many ideas suggested by most participants in my study.

Patient behavior. In the United States and Canada, mental health disorders are the leading cause of disability, accounting for as much as 30,000 mortalities in Americans annually (Lewistown Hospital et al., 2016). Mifflin County's suicide rate is above the state average and national benchmark due to inadequate mental health services (Lewistown Hospital et al., 2016).

Many studies have demonstrated that high-quality mental and behavioral healthcare may often be delivered in primary care settings (AHRQ, 2016). Because

mental health, behavioral health, and substance use disorders are among the most common conditions seen in primary care settings and frequently occur with other medical problems, primary care providers are often in the best position to identify, diagnose, and treat them (AHRQ, 2016). However, my study revealed that PCPs are not equipped to treat patients with drug abuse or opiate addiction, yet they are being forced to provide that service. My research also showed that the government might unintentionally be enabling unethical behaviors in patients who malinger and pretend to be disabled to in order to be considered for disability benefits. Perhaps government should require drug screenings in patients who apply for public benefits to ensure that only those who truly need the service receive it.

Further, a primary care practice will not reach its full potential without adequately addressing patients' mental health needs. However, in Mifflin County, most participants agreed that there was a lack of PCPs. This might have contributed to why certain primary/specialty care services like (dermatology, cardiology, mental health services, dental, internal medicine and orthopedics) are difficult to access or completely unavailable.

At the heart of every effective healthcare delivery system is the convenience and timeliness of primary care access. Not only does primary care provide patients with the community-based care that they so desperately need, but it also creates opportunities for team members to provide preventive health services, educate individuals and communities about chronic disease, conduct population-based research and help to reduce healthcare disparities (Rhode Island Department of Health, 2012). Previous survey

studies of patient experience have shown that providers of primary care services do not always respond well to the needs of different patient groups, and certain groups of patients are often underserved (Tarrant et al., n.d). Similarly, my study showed that patients with mental health disorders cry and beg to be seen by a mental health professional. This could very well mean that patients with mental health issues do not always receive the care that they so desperately need and might be an interesting phenomenon to look at in future research.

In my study, though most participants agreed having a good relationship with their healthcare provider, my study however elucidated that blackballing of a patient by a doctor due to unethical behavior influences patient/provider relationship and impacts access to primary care. My research also found that healthcare providers were responsive to patients when they were not abusing prescription or narcotic drugs. What happens then when patients abuse drugs but are in need of healthcare? Previous studies have shown that continuity of care has been associated with decreased hospitalizations and ED visits, improved health and utilization of preventive services especially among patients with chronic conditions (Cabana & Jee, 2004; Menec, Sirski, & Attawar, 2005; Pandh & Saultz; 2006 Saultz & Lochner, 2005). My study however showed that physician attrition made it impossible for patients to be seen by the same primary care doctor. This perhaps suggest that physician attrition may not allow for continuity of care which benefits patients' health and wellbeing. Further, patients who see the same practitioner over time, and who develop a personal relationship with their provider, express higher satisfaction (Tabler, Scammon, Jaewhan, Farrell, Andrada, & Magill, 2014). According to the

authors, continuity of care is beneficial for the health and satisfaction of patients and is generally viewed as important (Tabler et al., 2014). This perhaps suggest that physician/patient relationship which is crucial to developing trust and rapport is so shot lived that Mifflin County residents might be missing out on this very important aspect of healthcare. Leaders in healthcare management might want to consider providing attractive benefit packages to pool physicians to rural areas.

Patients' lack of ownership of chronic illness. The mortality, morbidity and disability attributed to the major chronic diseases currently account for almost (60%) of all deaths and (43%) of the global burden of disease (World Health Organization, 2017). According to World Health Organization (2017), by 2020 their contribution is expected to rise to (73%) of all deaths and (60%) of the global burden of disease. In the European Region, cardiovascular diseases, cancer, diabetes, obesity, and chronic respiratory diseases—account for an estimated (86%) of deaths and (77%) of the disease burden, measured by disability-adjusted life years (World Health Organization, 2009). This development has created a fundamental shift in health systems and healthcare, thus reversing the roles and responsibilities of patients. Aligned with this trajectory, care and treatment are now veering away from hospitals and into the community and the home, leaving patients and family accountable for their own health (Wong-Rieger, n.d). My study found that while most participants were aware of the need for people to care for their health and wellbeing, some others would rather not do so. This lack of self-care, often leads to worsening of chronic disease conditions in people.

Empowering citizens/patients encourages not only community interactions, but also involves healthcare professionals, policy makers and all other civil society actors in the fight to improve peoples' health and wellbeing (Wong-Rieger, n.d). My study revealed that most participants were in support of education as an informational tool that could help people make better decisions about their health. Further, evidence suggests that supporting self-management in people works and can motivate them along the lines of eating well and exercising; thus improving their symptoms and clinical outcomes and could even change how they use health services (de Silva, 2011). This perhaps suggest that healthcare leaders and researchers might want to consider using this tool as a means of health educating individuals and patients to better care for themselves, their families and friends as well.

This subsection elucidates research participant ideas for possible interventions that could help improve primary care access to/use of services provided in Mifflin County.

Theme Cluster 2

Reform the primary care system. Overall, the healthcare system in Mifflin County is yet to achieve the "triple aim" that comes from improving the personal experience of healthcare interactions, improving population-based health outcomes and containing cost (Berwick, Nolan, & Washington, 2008; Rhode Island Department of Health, 2012). The primary care system in Mifflin County is in dire need of repair to meet the expressed needs specific to community residents. The major challenges and barriers to primary care access were identified by both residents and healthcare providers, who also offered possible solutions to problems identified (see Appendix S). Addressing

these issues raised by community members could help boost the health management systems by crafting better health policies that work. Mifflin County residents would benefit from having care sites that are well structured, managed and situated within their communities. Providing reliable transportation systems could also help to ease the lack of transportation services, especially for the elderly and Amish residents in the county. Increasing the workforce pipeline through hiring of qualified PCPs, NPs and PAs (with attractive benefit packages) could encourage them to stay in rural areas and help alleviate provider burnout or attrition.

Evidence has shown that good access to primary care can help prolong life, make people feel better, avoid disability and long absences from work (Freundlich, 2013). Not only are people less likely to be hospitalized in areas of the country where there are more primary care providers per person but also, death rates for cancer, heart disease, and stroke are lower (Freundlich, 2013). Further, continuity of care helps to lower healthcare costs when people have a primary care provider overseeing their care and coordinating all the tests, procedures, and follow-up (Freundlich, 2013). My study found that in Mifflin county, there was no clear cut definition of what the operational healthcare system was. However, the healthcare providers made some suggestions about the healthcare systems that might work. One participant (MD1) called for having a Single Payer Healthcare System which would ensure that everyone was covered but that patient choice would disappear under this system. Participant advocated for doctors to be independent which increases patient choice and decreases cost. However, MD2 on the order hand suggested having a universal healthcare system as in every other major modern democracy. He

emphasized the importance of encouraging people to vote and lobby for legal action against medical systems that practice anticompetitive practices. One final suggestion by (N1) called for using a top-down approach to problem solving issues which would make the healthcare system function better.

Provide more community health centers. Over the past five decades, community health centers over across the United States, have been providing care in underserved communities for all peoples regardless of their ability to pay (Whelan, 2010). Though, these health centers are mostly located in underserved areas, they are also found in all 50 states, the District of Columbia and in the nation's territories and commonwealths (Whelan, 2010). Community health centers are required by law to be situated in inner-city neighborhoods or isolated rural areas –particularly those designated as medically underserved areas with higher poverty rates (Whelan, 2010). Although there are over 8,000 community health centers, the unmet need is still enormous. Community health centers are required to provide comprehensive health services, far beyond what hospitals or out-patient clinics would ordinarily provide. Not only do they offer these full range of services, but also provide specialty care such as (podiatric, orthopedic, or cardiac care), mental/dental health services, supportive services that can include care coordination/case management, nutrition education, transportation/translation services, and outreach activities to help find patients that qualify for these services (Whelan, 2010). This also means that community health centers provide culturally competent, patient-centered care.

Though studies evidently show that patients' health outcome improves through the services provided for by community health centers, my study found that Mifflin County communities lack community health centers and so miss out on benefiting from the services provided. The patients of community health centers are also more likely to report having better patient/provider relationships, and identify as having a usual source of care (Whelan, 2010). Such comprehensive health services provided for by these health centers are among the reasons that care costs less and ultimately save the broader healthcare system money (Whelan, 2010). Studies approximate that care community health centers provide saves the healthcare system in the the United States between $9.9 billion and $24 billion yearly by drastically reducing ER visits that are highly unnecessary and other hospital-based care (Whelan, 2010). Perhaps, healthcare leaders might want to consider integrating community health centers into Mifflin County townships/boroughs to allow community residents to benefit from the services provided for by these health centers.

Hire more PCPs. Though research has shown that clinics or hospitals with adequate physician supply increases patient usage of care services and leads to improved health outcomes, my study found that Mifflin County communities suffer from inadequate PCPs. The Tajistan study conducted by Fan and Habibov (2009) found that the availability of qualified healthcare providers was a determining factor for healthcare use. Similarly, my study found that due to inadequate PCPs, there were not enough physician time slots to schedule patients for appointments, so they sought out other options like visiting emergency rooms or urgent care. Perhaps, leadership should consider

hiring more PCPs by offering them attractive physician benefit packages to encourage them to want to practice in rural areas as this might increase the use of services provided. Also, management may want to hire NPs and PAs to complement the services of PCPs. This could guard against physician burnout and attrition and help reduce physician-patient ratio.

Employ the services of NPs and PAs in rural areas. Research suggests that, by expanding scopes of practice for non-physician primary care providers such as PAs and NPs, access to primary care services could be improved and the quality of those services would be comparable to that provided by physicians (National Conference of State Legislators, 2017). My study found out that both participant pools (physicians and nurses) as well as (residents) were aware of the dire need to employ more healthcare providers to meet patients' demand for services. Using the services of NPs and PAs in this regard would complement the inadequate physician supply and boost access to primary care services thus, reducing physician-patient ratio. One approach to meeting this increased demand that is under consideration in many state legislatures is a redefinition through expansion, of the scope and standards of practice for non-physician practitioners (Robert Hood Johnson Foundation, 2011). The National Conference of State Legislators' 2012 session, tracked 827 bills to redefine providers' scopes of practice in 29 states, 154 were enacted in 24 states and the District of Columbia (National Conference of State Legislators, 2013). A recent survey found that 41 percent of rural Medicare beneficiaries saw a PA or NP for all (17%) or some (24%) of their primary care in 2012 (Hayes & Bloniarz, 2013). My study found that using the services of NPs and PAs reduces the

workload of PCPs. According to National Conference of State Legislators (2017), expanded scope of practice for non-physician practitioners also could potentially result in decreased costs, although more research is needed in this area to determine whether cost savings can be achieved in rural areas. Perhaps, states might want to develop better ways to measure the effects of expanded scopes of practice on cost, quality and access to care (National Conference of State Legislators, 2017).

NPs and PAs are continually being asked to coordinate care across disciplines and use more complex technological tools and information systems. As rural and frontier areas increasingly rely on non-physician practitioners to deliver primary care services, research indicates that these providers need to attain higher levels of training and education over the course of their career (Robert Wood Johnson Foundation, 2011). State policymakers could consider increasing educational and licensing standards for these professionals in order to meet these growing demands. By attempting to find a balance between using non-physician primary care providers to the fullest extent of their education and ensuring that patients can seek treatment in a safe and cost-effective environment, states can potentially work toward meeting the growing healthcare needs of their rural populations (National Conference of State Legislators, 2017). Many participants from my study agreed that more providers are needed to meet patients' demand for services and that NPs and PAs could potentially fulfill this need.

Improve transportation. The importance of having transportation services to and from appointment services cannot be overemphasized. Mifflin County residents who do not have their personal owned vehicles, as well as the Amish and elderly population

groups are mostly affected by transportation issues. My study found that all participants were aware of the need for improved transportation to and from appointments – especially for the elderly and Amish. Perhaps, leadership should consider working with the department of transportation to set up a van system to help improve transportation difficulties and invariably help improve access to care services.

Educate community residents on primary care access. Research points out that recent changes in health insurance status for newly insured and newly uninsured adults are linked to greater ED use – not community health centers, family physicians or urgent care centers (Branson, 2012). Using ED for non-emergent care is truly one of the most inefficient options for people because providing healthcare this way, ties up resources that can be better used, costs substantially more than care delivered in a lower acuity setting, and typically has much longer waiting times than other healthcare options (Branson, 2012). Similarly, my study found that people who used the ED due to prolonged wait times or scheduling difficulties, also experienced longer waits in emergency rooms. According to Branson (2012), low-income patients could be helped to access the healthcare system through non-medical services, typically delivered by primary care practices and community health centers. These services address the social determinants of healthcare by helping patients navigate through transportation to appointments, conducting case management assessments and performing community outreach and education activities (Branson, 2012). However, my study elucidated that though there was a strong need to educate consumers of health in Mifflin County on how to access and use the healthcare system (like transportation to services and ways to help

with cost); Mifflin County communities lacked community health centers that could have provided these services. Current research is focused on investigating how these patient-centered services would affect the healthcare delivery to underserved patients – the results of which would not only affect the implementation, but also reimbursement as well (Branson, 2012). Though, consumers can be educated in many ways, we need to ensure that the job is done (Branson, 2012). This reminds me of an adage, "If we build it, they will come." Unless we focus on education, they may come but never figure out how to use it (Branson, 2012).

Make healthcare more affordable. Healthcare costs was noted as one of the main challenges impeding access to primary care in Mifflin County. According to Healthy People 2020 (2015), individuals without health insurance are likely to skip routine medical care due to high health care costs, thus predisposing them to more serious and debilitating health conditions. My study found that while some patients delayed care or skipped preventative services due to high healthcare costs, some others resorted to using the ED or urgent care for treatment. Studies have shown that rural residents who reside in remote areas are also least likely to be covered by health insurance (Bennett et al; 2008). In Mifflin County, 14 percent of community residents remain uninsured (Lewistown Hospital et al., 2016). Perhaps, leadership should focus on designing programs that would help cut healthcare costs for community residents as this could help improve access to primary care.

Use Health Information Technology (EHR) to coordinate care services. Research shows that when patients are engaged in their healthcare, it can lead to

measurable improvements in safety and quality (Agency for Healthcare and Research Quality, 2017). The integration of health information technology (HIT) into primary care includes a variety of electronic methods that are used to manage information about people's health and healthcare, for both individual patients and groups of patients (AHRQ, 2016). The use of health IT can improve the quality of care, even as it makes healthcare more cost effective (AHRQ, 2016). My study found that coordinating care services through interprofessional collaboration (sending medical center satellite to the hospital) could help improve access to primary care. This may suggest that integrating HIT in primary care access may help close the gap on physician shortages by helping to improve coordination of care in underserved communities.

This subsection illuminates the interpretation of findings for the role of CBR in primary care access.

Theme Cluster 3

CBR improves primary care access for community residents. The goal of CBR is to foster sustainable efforts at the local level to facilitate improved health for all (National Institute of Health, 2013). Burke's (2006) study found that understanding the perspectives of consumers is central to improving rural populations' health services. Prasad et al.'s (2015) community-based study in Pondicherry India (2014) showed that a satisfactory utilization of primary health center by community residents was due to healthcare provider availability, less waiting times and health education activities (Prasad et al; 2015). Chopyak (2016) and Horowitz et al. (2009), report that including community members as partners may facilitate research. Similarly, my study found that (76.9%) of

participants agreed that CBR could help improve access to primary care services by effecting a positive social change while (23.1%) did not agree.

CBR benefits primary care consumers. CBR engages the most trusted members of the community where they collaborate with researchers, leading to knowledge that directly benefits communities and influences policies that affect health. Neuwelt's (2012) research on the purpose and process of involving communities in primary healthcare, revealed varied views on community participation among different stakeholder groups in the sector. Most described it as a complex process of relationship-building over time and one that is quite distinct from consumer feedback processes in general practice (Neuwelt, 2012). For community representatives, it was a process of trust-building/information-sharing between communities and health professionals; and these relationships enabled people to feel comfortable seeking care, and for professionals to mold services to people's needs (Neuwelt, 2012). My study found about half of study participants (57.7%) agreed that meeting with community leaders/residents to discuss how to improve primary care access was beneficial to primary care consumers while (42.3%) stated that it would not be beneficial to discuss how to improve primary care access because community leaders/residents do not have a lot of say at the local level.

Respondents do not want to participate in CBR. The viewpoints of persons outside the target communities have long dominated the development programs to improve health. Such interventions, created solely by outsiders, have often worsened the inequalities that researchers aimed to address, creating tension that dissuaded community members from sharing invaluable perspectives and ideas, and hindering the subsequent

entry of researchers into communities (Green & Mercer, 2001). Similarly, my study showed varied views of participants on their willingness to participate in CBR. According to Chimezie (2013), who better than community members would know whether the research methods/tools are sensible and engaging, and know how to structure participant recruitment so that people want to take part than the community members themselves? My study also found that (46.2%) of participants stated that they would be willing to talk to community leaders/residents and participate in CBR while the other (53.8) stated that they would not be willing to talk to community leaders/residents and would not participate in CBR because they do not have enough power at the local level to influence change.

Identified issues remain unresolved in Mifflin County and suggest that leadership should focus on ways to address them. Further, understanding the study phenomenon from the perspectives of community members in Mifflin County townships/boroughs could help to inform both local and state authorities about the need to improve community participation in decisions affecting their health and in implementing healthcare services to improve health outcomes. Perhaps, more education is needed in this area to teach community members how invaluable their contributions are to research and how their voices and consented efforts could effect a positive social change. CBR is considered important in primary healthcare development and there is some evidence to suggest it is directly associated with positive health outcomes (Centre for Community-Based Research, 2011; Preston, Waugh, Larkins, & Taylor, 2010).

Applying the Conceptual Framework to the Results

Penchansky and Thomas's (1981) 5 dimensions of access (availability, accessibility, accommodation, affordability and acceptability) in this section, will serve as a yardstick to discern whether primary care services in Mifflin County satisfy each of the models identified above.

Availability: The local healthcare system did not meet the availability dimension of healthcare access as there were no local community health centers in 7 out of the 9 townships/boroughs in Mifflin County. Residents travelled outside their communities for primary care. Also, PCPs were inadequate or nonexistent. Some participants in my study reported that certain resident population groups use the ED for primary care – especially the (20-30 year-olds) as well as those without/inadequate health insurance. Themes 1 through 8 illustrated how insufficient community health centers, inadequate PCPs, long appointment wait times, limited provider choices, health insurance issues, limits on Medicaid Access Card and unmet patient needs influenced primary care access to and use of services provided in Mifflin County. Most of the participants believed that educating community residents on financial assistance available to them especially the (elderly, uninsured and Amish) could improve primary care accessibility. Finally, some healthcare providers offered suggestions as to the type of healthcare system that might work best in Mifflin County. MD1 mentioned the pros and cons of having a single payer system and opted for the independency of physicians as a way to increase patient choice and reduce cost. MD2 preferred a universal healthcare system as in every other major modern democracy. R12 suggested that the United States should operate the same medical care

system as Western European natives and asserted that the U.S. corporate greed was preventing this type of healthcare system from being implemented.

Accessibility of primary care in Mifflin County was limited as evidenced by themes 9 to 10. Traveling distances to care facilities and transportation issues impeded access to primary care. Study participants agreed that they had to travel some distances outside their communities to reach care facilities. Most of them echoed the transportation difficulties faced my Amish and elderly residents in Mifflin County communities and urged leaders to set up a van system to ease transportation issues. According to Neutens (2015), poor utilization of preventive healthcare services can be linked to spatial barriers between patient and provider which ultimately culminates in poorer health outcomes.

Accommodation: Penchansky and Thomas (1981) argued that when services provided are not designed to reflect people's culture, they cease to seek or continue to use the healthcare system (p. 128). Savedoff (2009) also reported that access may be limited when healthcare services are provided in a way that conflicts with popular beliefs, religion, or social norms. While most participants in my study agreed that their healthcare providers understood their situations and accommodated to their healthcare needs, some factors like appointment scheduling times, special needs of the Amish and elderly made primary care access a whole lot more difficult. Further, though most residents confirmed that there were procedures in place to accommodate reports/complaints about poor service, a few others reported that nothing was ever done about such complaints. Some of the factors elicited above either positively or negatively impacted access to primary care (themes 11-13).

Affordability is a key issue in healthcare access and is limited in this study. Studies have emphasized cost of care (ability to pay) as having a great impact that can facilitate or obstruct getting necessary healthcare services (Penchansky & Thomas, 1981; Savedoff, 2009). Mifflin County residents that are covered by insurance pay for services through those providers in the network. Most had deductibles, copays and coinsurance which were oftentimes very high and made access to primary care more difficult. Residents had to stick with providers in their network or risk paying out-of-pocket costs. Some participants stated that they sometimes had to travel 60 miles or more if necessary to navigate through out-of-provider networks. Many of those who were uninsured or underinsured either delayed, skipped appointments and preventative care, or used the ED or urgent care as source of primary care. N2 stated that this area uses ED as source of primary care especially (20-30 year olds). Medication cost was through the roof and most participants identified this factor as one of the main challenges to care in Mifflin County. N3 stated that a lady quit taking her insulin because she could no longer afford the cost. According to Healthy People 2020 (2017), uninsured people are more likely to have poor health status (N3 stated that many patients seen at their convenient health center had dental caries and abscessed teeth); less likely to receive medical care (MD1 stated that patients may not come in or make appointments due to insurance costs); more likely to be diagnosed later leading to chronicity in medical conditions (the Amish/elderly plus those that delay treatments due to cost), and more likely to die prematurely (themes 14-15).

Acceptability addresses whether available healthcare services are appropriate to the norms, expectations and cultural behaviors of the population (Savedoff, 2009). In my

study this is limited (themes 16-19). Though, most of the healthcare providers in this study stated that they were responsive to patients' needs, MD1 reported that unethical patient behavior causes a patient to be blackballed by a physician or made the healthcare provider to be less responsive. In my study, the healthcare providers reported that most patients were responsive to the primary care services provided by members of the healthcare team, otherwise, they sought out other providers who would satisfy their healthcare needs. Factors like language barrier, patient's literacy level and patients' lack of self-care in chronic illness also impacted primary care access in Mifflin County. According to Agency for Healthcare Research and Quality (2014), limited health literacy is associated with a decreased likelihood of using preventive health services and a greater likelihood of medication errors and poor health status. In my study, MD1 reported that the Amish do not follow doctor's recommendations and R13 was not sure if his primary care provider understood his situation. Further, Carman et al. (2009) stated that patients' and family members' perceptions of quality of care are influenced to a large degree by their perceptions of a given provider, since they often assess the quality of care primarily based on their interpersonal interactions with the provider, as opposed to the provider's specific clinical skills in treatment and diagnosis. Lastly, it could be beneficial to involve community members in CBR to help solve community problems.

Limitations of the Study

This study is only preliminary research into participants' perceptions regarding primary care access in Mifflin County. Limitations involved with my study include limiting factors specific to phenomenological investigations. This research project may

not have exhausted all avenues regarding residents' perceptions or produced comprehensive results in that (1) the instrument was designed by the researcher, and the best outcomes may not have been produced by a self-designed instrument, (2) a small number of participants were interviewed and surveyed and study results may not be generalizable to other populations, (3) a short time was spent in gathering data due to time constraints and limited finances, (4) data validity or trustworthiness may have been compromised due to researcher experience, and (5) ideas may have been forced to fit into a narrow defined framework and may have influenced researcher's interpretation of findings.

Implications for Social change

According to Schutt (n.d), promoting social welfare that will serve people, requires changing activities in social structure. The interest to conduct this study stems from pure zeal for knowledge and a desire to uncover the issues and challenges faced by Mifflin County residents (as a past resident myself) regarding primary care access and to identify ways to address them. Understanding this phenomenon from the perspectives of community members in Mifflin County townships/boroughs could help to inform both local and state authorities about the need to improve community participation in decisions affecting their health and in implementing healthcare services to improve health outcomes.

At a policy level, the study findings point to the fact that the crisis situation of primary care in the United States is also present in Mifflin County. The community health center in the United States is the dominant model for federal grant funding for

primary care in the country's healthcare safety net, yet many of the townships/boroughs interviewed and surveyed in Mifflin County lack these essential community health centers (Taylor, 2004). Primary care access issues do not exist in isolation but stem from community resident's lived experiences – those who are directly impacted by the provision/operation or lack there of, of these healthcare services. Research study results elucidate many challenges/barriers to primary care access faced by Mifflin County residents when trying to get medical help and offers ideas for possible interventions that could help to improve access to/use of primary care services.

Data from this study could provide variables for a quantitative study (baseline and follow-up) to aid further research on primary care access, as well as help to develop a ground up model of healthcare that satisfies the expressed needs of Mifflin County residents. Finally, information garnered from this study could also add to the body of knowledge that CBR can generate important information to support social change by effecting policy and practice changes to benefit county residents (Centre for Community-Based Research, 2011).

I will share the final study results in presentations at appropriate academic conferences and in papers in appropriate journals. I will also share study results with stakeholders from Mifflin County townships/boroughs via e-mail and community news outlets to community leaders, board of supervisors, borough council members and residents alike. I will ask the healthcare providers to share study results with other healthcare executives, policy makers and employees of both local/state departments of health. I will follow-up on updates via email communications after 9 months since

completion of this study to inquire about any positive changes made to the primary healthcare system.

Conclusion

This study explored community resident/healthcare provider perceptions of barriers to primary care access with the aim of learning about ideas for possible interventions that could improve primary care services for county residents. Utilizing a qualitative phenomenological research approach to form descriptive themes, the researcher conducted in-depth telephone interviews with 3 healthcare providers (physician and nurses) and 7 residents. In addition, 16 participants (physician, nurses and residents) were surveyed.

My findings revealed that primary care access is limited in Mifflin County due to (a) inadequate health services emanating from insufficient community health centers, provider shortages, health insurance issues, (b) high cost and poor choice of services discourage community residents from seeking preventative care, (c) distance from services reduce rural resident's ability to access primary care, (d) other services problems impact the quality of care received, and (e) healthcare providers/residents in CBR can provide invaluable information to help improve access to/use of primary care services. The state of primary care in Mifflin County communities thus far has been sparse or non-existent, with no community health centers in most areas, so that residents had to travel outside their communities in search for medical help. This is partly a reflection of the current shortage of PCPs willing to work in rural areas, and represents an important public health issue. Residents and healthcare providers identified the main challenges and

barriers to primary care access in Mifflin County, and offered ideas for improving access.

My study also elucidated other important factors that contribute to literature such as: (1) PCPs have not been trained to treat patients with opiate addiction yet are being forced to do so, (2) politicians were misinformed by the drug manufacturers (i.e. Purdue Pharmaceuticals) in the 1990's and changed the laws to allow addictive medications to be prescribed by physicians who were told that they were undertreating pain, (3), mandating drug screening for people getting public services to help curb drug abuse, (4) patients are dismayed that their hospital acquisition by Geisinger Health System after all its sales pitches, failed to meet its promises to support local businesses and return the small town physicians to the county, and (5) passing Katie's law.

In order to meet the Healthy People 2020 objectives of access to health services, healthcare providers at both the federal, state, and local levels, health executives, as well as policy makers must coordinate their services to provide access to comprehensive and quality healthcare for rural residents. According to Healthy People 2020 (2017), access to primary care is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death, and achieving health equity for all Americans.

Recommendations for Action

One area that needs immediate attention in Mifflin County is education, as it is often said that 'knowledge is power.' Surprisingly, only 57.7 percent of study participants thought that it would be beneficial to talk to community leaders/residents to discuss ways of improving primary care access while the other 42.3 percent participants were cynical

of its benefits. I think that education could restore community confidence in their ability to effect change and empower them to use their voices to bring about such change. It could also motivate them to want to engage more in discussions that help to identify community needs and interests. Each township/borough in Mifflin County already has its own board of supervisors and borough council members acting as liaisons between community members and other stakeholders. These community leaders could form a coalition and set up a schedule to meet either quarterly or biannually to discuss issues of interest to the community and then pass along such information to those in positions of authority to take action. Statistics on issues raised and discussed during these meetings could potentially serve as goldmine for CBRs – who could utilize information gleaned from documented minutes in the archives to conduct research on identified issues. Further, public health officials as well as community health workers could also utilize the wealth of information contained in data archives to redistribute resources to where they are mostly needed, educate community residents and evaluate community needs assessment based on identified issues.

Other areas requiring cogent attention are lack of community health centers in Mifflin County townships and boroughs, lack of PCPs/specialists and lack of transportation. There should be an immediate restructuring of both the local and state departments of health to ensure that community issues are well represented by community representatives. According to Taylor (2004), community health centers (CHC) primarily provide healthcare to patients who are uninsured or covered by Medicaid. In Mifflin County, some dentists do not accept patients with Medicaid Access

Card and such patients could benefit from services provided by health centers. Leaders should consider developing a ground-up model of healthcare that satisfies the expressed needs of community residents in Mifflin County. They might also want to look at what other counties are doing to see what has been successful for them and device ways to implement such within their communities.

Also, in my study, health insurance issues were identified as one of the main challenges faced by residents that decreases primary care access. In 2007, almost (40%) of all CHC patients lacked insurance, and (35%) were Medicaid patients (Kaiser Family Foundation, 2009). Compared with patients who receive care from private providers, CHC patients were almost three times more likely to seek care for serious and chronic conditions (Taylor, 2004). In Newton Hamilton borough, a patient quit taking her insulin shots due to lack of prescription coverage. Leadership should focus on finding ways to provide low cost medicines or free healthcare for the uninsured or poorly insured. They could form alliances with companies like AstraZeneca (a science-led biopharmaceutical business) or GoodRX (provides pharmacy discount cards) to help reduce medication costs or provide free medicines for those who cannot afford to buy their medications – through Patient Assistance Programs that gives free prescription drugs to those who cannot afford.

Leaders should also focus on hiring PCPs by providing them with good incentives/benefit packages to make them want to work in rural areas. They should equally hire PA’s and NP’s with good benefit packages as well to help ease the burden of physician burnout or attrition. In order to ease transportation issues, leaders may want to

work with the department of transportation to set up a van system as suggested by one of my study participants – N1 in particular. This could help to ease transportation difficulties.

Another participant (R8) suggested home visits by paramedics (to check on the elderly) as used to be done more than 50 years ago. This avenue might be worth looking into. Leadership should provide housing for the elderly and the disabled. Our elderly residents have contributed their fair share to the economy and helped to shape the society that we now live in. Now it is our turn to make their last days better yet. The disabled in our communities should not be forgotten either and deserve a chance at contributing in any way they can. Finally, the issue of patient behavior and drug addiction leaves much to be desired. MD1 from my study raised so many issues centered around this important public health issue. As we continue to battle the many faces of drug addiction in our communities in general and the society at large, we must confront this epidemic crisis head on and insist that all hands must be on deck. Furthermore, our leaders need to expand mental health options and provide services that improve access to care. Mental health disorders are the leading cause of disability in the United States, accounting for a quarter of all years of life lost to disability and premature mortality (Lewistown Hospital et al., 2016).

Recommendation for Future Research

The interest to conduct this study stems from a yearn for knowledge and the desire to uncover the issues and challenges faced by Mifflin County residents regarding primary care access and to identify ways to address them. The results of my study could

provide ideas for possible interventions to help improve primary care access in Mifflin County. Data from this study could also provide variables for a quantitative study (baseline and follow-up) to aid further research on primary care access, as well as to help develop a ground up model of healthcare that satisfies the expressed needs of Mifflin County residents. Finally, information garnered from this study could add to the body of knowledge that CBR can generate important information to support social change by effecting policy and practice changes to benefit county residents (Centre for Community-Based Research, 2011).

Future research should further explore primary care access and delivery mechanism in Mifflin County with regard to the use of CBR – particularly serving as a key communication conduit for residents/healthcare providers to share problems and ideas with health executives in positions of authority to influence change. This could help to improve the smooth running of the primary care system. Broadening the target population to include more diverse demographic areas could make study findings to be generalizable to other populations.

Additional studies should focus on studying patient behavior in substance use and abuse and the drawbacks of abusing the healthcare system. As a way to contain cost and remedy the opioid crisis which is presently at an all time high in the United States and a menace in Mifflin County, research should focus on the effect of training PCPs in the management of drug seeking behavior or opiate addiction in patients. This issue was identified by 2 or more participants in my study as a problem worthy of attention.

Another area of interest worth mentioning is mental health. Future research should also focus on evaluating whether there is a link between delays in obtaining treatment for mental health disorders and the worsening of mental health crisis or the increase in suicide rates. In Mifflin County, the suicide rate (14.3%) is still above the state average.

One final research area regarding primary care access should be the future direction for retirees with fixed income. A retired participant in my study would like an answer to that question. In addition to the need for more research to generate new knowledge, there is a pressing need also to effectively transfer the knowledge gained, and to translate the evidence into concrete practice and policy interventions.

As I go back and reflect on why I started this research in the first place, I cannot help but wonder that this study could not have come at a better time. Understanding this phenomenon from the perspectives of community members in Mifflin County townships/boroughs could help to inform both local and state authorities about the need to improve community participation in decisions affecting their health and in implementing healthcare services to improve health outcomes. Further, the results of my study could provide ideas for possible interventions to improve primary care access in Mifflin County. Data from this study could provide variables for a quantitative study (baseline and follow-up) to aid further research on primary care access, as well as help to develop a ground up model of healthcare to satisfy the expressed needs of Mifflin County residents. Finally, information garnered from this study could also add to the body of knowledge that CBR can generate important information to support social change by

effecting policy and practice changes to benefit county residents (Centre for Community-Based Research, 2011).

Lessons Learned from Conducting this Study

In a number of ways, the implementation of this research study proved essential. Firstly, engaging oneself from a phenomenological perspective, where from the participants' experiences, the researcher creates meaning in an attempt to comprehend their perspectives, perceptions, and understandings of a particular situation or phenomenon; through engaging with participants and a shared meaning, the researcher can express the experience from the participants' perspective (Doodly & Doodly, 2015). Secondly, reflecting the importance of the research process – difficulty in conducting phenomenological inquiry, and reflecting on the interview and the interview questions (Doodly & Doodly, 2015). Thirdly, another important aspect of the research study was the realization of the underestimation of the time required to conduct the transcription of the audio recording and the time required to go through the data-analysis process to formulate higher order categories from the initial highlighted key statements (Doodly & Doodly, 2015). Listening to the recording and reading through the transcript helped me improve as an interviewer and the way of introducing the issues into the interview and moving between topics. The research study certainly helped me to gain experience, develop as a researcher and articulate the related possible risks and study costs (Doodly & Doodly, 2015).

References

Agency for Healthcare Research and Quality. (2004). *Community based participatory research: Assessing the evidence* (AHRQ Publication No. 04–E022-2). Retrieved from http://archive.ahrq.gov/downloads/pub/evidence/pdf/cbpr/cbpr.pdf

Agency for Healthcare Research and Quality. (2009). AHRQ activities using community based participatory research to address health care disparities. Retrieved from http://www.ahrq.gov/research/cbprbrief.htm

Agency for Healthcare Research and Quality. (2009). *Health care in urban and rural areas, combined years 2004-2006* (MEPS Chartbook No. 13). Retrieved from http://www.ahrq.gov/data/meps/chbook13up.htm.

Agency for Healthcare Research and Quality. (2011). Primary care workforce facts and stats No. 2. Retrieved from http://www.ahrq.gov/research/pcwork2.htm

Agency for Healthcare Research and Quality. (2014). *Health literacy interventions and outcomes: An updated systematic review* (Publication No. 11-E006). Retrieved from http://www.ahrq.gov/research/findings/evidence-based-reports/er199-abstract.html

Agency for Healthcare Research and Quality. (2014). Primary care workforce facts and stats: Overview. Retrieved from http://www.ahrq.gov/research/findings/factsheets/primary/pcworkforce/index.html

Agency for Healthcare Research and Quality. (2016). Improving primary care practice. Retrieved from http://www.ahrq.gov/professionals/prevention-chronic-

care/improve/index.html

Agency for Healthcare Research and Quality. (2017). Guide to patient and family engagement in hospital quality and safety. Retrieved from https://www.ahrq.gov/professionals/systems/hospital/engagingfamilies/index.html

Allen, H., Bill, J., Harding, W. K., & Broffman, L. (2014). The role of stigma in access to health care for the poor. *The Milbank Quarterly, 92*(2), 289-318. doi:10.1111/1468-0009.12059

American College of Physicians. (2008). Achieving a high-performance health care system with universal access: What the United States can learn from other countries. *Annals of Internal Medicine, 148*(1), 55-75. doi:10.7326/0003-4819-148-1-200801010-00196

Anderson, A. (2014, March). The impact of the affordable care act on the health care workforce. *The Backgrounder on Health Care, 2887*. Retrieved from http://www.heritage.org/research/reports/2014/03/the-impact-of-the-affordable-care-act-on-the-health-care-workforce

Artz, K. (2015). Health and Human Services: Medicaid patients have limited access to doctors. Retrieved from http://humanevents.com/2015/01/30/hhs-medicaid-patients-have-limited-access-to-doctors/

Association of American Medical Colleges. (2012). Trends in cost and debt at U.S. medical schools using a new measure of medical school of attendance. *Analysis in Brief, 12*(2). Retrieved from https://www.aamc.org/download/296002/data/aibvol12_no2.pdf

Association of American Medical Colleges. (2013). Physician shortages to worsen without increases in residency training. Retrieved from https://www.aamc.org/download/153160/data/physician_shortages_to_worsen_without_increases_in_ residency_tr.pdf

Babbie, E. (2010). *The practice of social research*. Belmont, CA: Cengage Leaning.

Baicker, K., & Chandra, A. (2004). Medicare spending, The physician workforce and beneficiaries' quality of care. *Health Affairs (Millwood), 4*, 184-97. doi:10.1377/hlthaff.w4.184

Bale, H. E. (n.d). Proposal: Improving access to health care for the poor, especially in developing countries. Retrieved from http://www.global-economic-symposium.org/knowledgebase/the-global-society/financing-health-care-for-the-poor/proposals/improving-access-to-health-care-for-the-poor-especially-in-developing-countries

Beasley, J. W., Starfield, B., Weel, C. V., Rosser, W. W., & Hag, C. L. (2007). Global health and primary care research. *The Journal of the American Board of Family Medicine, 20*(6), 518-526. doi:10.3122/jabfm.2007.06.070172

Bell, G. R. (2012). A framework for community engagement in primary health. Primary Health Development Team, Saskatoon Health Region. Retrieved from https://www.saskatoonhealthregion.ca/locations_services/Services/Primary-Health/Documents/SHR%20framework%20for%20community%20engagement.pdf

Bennett, K. J., Olatosi, B., & Probst, J. C. (2008). Health disparities: A rural-urban

chartbook. Retrieved from http://rhr.sph.sc.edu/report/(7-3)%20Health%20Disparities%20A%20Rural%20Urban%20Chartbook%20-%20Distribution%20Copy.pdf

Berg, B. L. (2007). *Qualitative research methods for the social sciences* (6th ed.). San Francisco: Pearson Education, Inc.

Bernard, H. R. (2002) Research methods in anthropology: Qualitative and quantitative approaches (3rd ed.). Lanham, MD: AltaMira Press.

Berwick, D. M., Nolan, T. W., & Washington, J. (2008). The triple aim: Care, health and cost. *Health Affairs (Project Hope), 27*(3), 759-769. doi:10.1377/hlthaff.27.3.759

Bodenheimer, T. & Pham, H. (2010). Primary care: Current problems and proposed solutions. *Health Affairs, 29*(5), 799-805. doi:10.1377/hlthaff.2010.0026

Bourke, L. (2006). Is access to health services a problem for rural consumers? Perspectives of metropolitan and non-metropolitan health consumers in Victoria. *Journal Research for Consumers, 11*, 1–12. Retrieved from http://jrconsumers.com

Brandenburg, L.; Gabow, P., Steele, G., Toussaint, J., & Tyson, B. (2015). Innovation and best practices in health care scheduling (Discussion paper). Retrieved from https://nam.edu/wp-content/uploads/2015/06/SchedulingBestPractices.pdf

Branson, D. (2012). Educating patients is a primary need for better healthcare access. Retrieved from https://adamsgroup.wordpress.com/2012/06/27/educating-patients-is-a-primary-need-for-better-healthcare-access/

Cabana, M. D., & Jee, S. H. (2004). Does continuity of care improve patient outcomes.

Journal of Family Practice, 53(12), 974-980. Retrieved from http://www.hpm.org/Downloads/Bellagio/Articles/Continuity/Cabana_MD_-_2004_-_Does_continuity_of_care_improve_patient_outcomes.pdf

Cachia, M., & Millward, L. (2011). The telephone medium and semi-structured interviews: A complementary fit. *Qualitative Research in Organizations and Management: An International Journal, 6*(3), 265-277. doi:10.1108/17465641111188420

Center for Community-Based Research. (2011). What is community based research? Retrieved from http://www.communitybasedresearch.ca

Centers for Disease Control and Prevention. (2015). CDC's chronic disease prevention system. Retrieved from http://www.cdc.gov/chronicdisease/about/prevention.htm

Centers for Disease Control and Prevention. (n.d). Planning, implementing, and evaluating an intervention: An overview. Retrieved from http://www.cdc.gov/violenceprevention/pdf/chapter1-a.pdf

Cham, M., Sundby, J., & Vangen, S. (2005). Maternal mortality in the rural Gambia: A qualitative study on access to emergency obstetric care. *Reproductive Health, 2*(3). doi:10.1186/1742-4755-2-3

Chen, C., Chen, F., & Mullan, G. (2012). Teaching health centers: A new paradigm in graduate medical education. *Academic Medicine, 87*(12), 1752-1756. doi:10.1097/acm.0b013e3182720f4d

Chen, P. (2011). How one small group sets doctors' pay. *The New York Times*. Retrieved from http://well.blogs.nytimes.com/2011/09/22/ how-one-small-group-sets-

doctors-pay/.

Chernow, M. E., Sabik, L., Chandra, A., & Newhouse, J. P. (2009). Would having more primary care doctors cut health spending growth? *Health Affairs,* 28(5), 1327-1335.

Chimezie, R. O. (2013). *A case study of primary healthcare services in Isu, Nigeria* (Doctoral dissertation, Walden University). UMI Number: 3558764.

Chopyak, J. (2016). CBR: Research for action. Retrieved from http://www.hfrp.org/evaluation/the-evaluation-exchange/issue-archive/methodology-15/community-based-research-research-for-action

Christensen, L. B., Johnson, R. B., & Turner, L. A. (2010). Research methods, design, and analysis (11th ed.). Boston, MA: Allyn and Bacon.

CityData.com. (2016) Mifflin County, Pennsylvania. Retrieved from http://www.city-data.com/county/Mifflin_County-PA.html#ixzz42NZzZxzk

Clark, R. A., & Coffee, N. (2011) Why measuring accessibility is important for public health: A review from the cardiac ARIA project*. Public Health Bulletin of South Australia, 8*(1), 3-8.

Coburn, A. F., Lundblad, J. P., MacKinney, A. C., McBride, T. D., Mueller, K. J., & Warson, J. D. (2014). The patient protection and affordable care act of 2010: Impacts on rural people, places, and providers: A second look. Retrieved from http://cph.uiowa.edu/rupri/publications/policypapers/PPACA%20Second%20Look.pdf

Cohen, L., Chavez, V., & Chehimi, S. (2007). Prevention is primary: Strategies for

community well-being. San Francisco, CA: Jossey-Bass.

Colaizzi, P. (1978). Psychological research as the phenomenologist views it. In R. Valle & M. King (Eds.), Existential phenomenological alternative for psychology (pp. 48–71). New York, NY: Oxford University Press.

Collins, S. R., Rasmussen, P. W., Doty, M. M., & Beutel, S. (2015). The Rise in health care coverage and affordability since health reform took effect: Findings from the Commonwealth Fund Biennial Health Insurance Survey, 2014. The Commonwealth Fund Issue Brief (January 2015). Retrieved from http://www.commonwealthfund.org/~/media/files/publications/issue-brief/2015/jan/1800_collins_biennial_survey_brief.pdf?la=en

Community Tool Box. (2016). Conducting surveys. Retrieved from http://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/conduct-surveys/main

Connor, R., Kralewski, J., & Hilson, S. (1994). Measuring geographic access to medical care in rural areas. *Medical Care Research and Review, 51*(3), 337-77.

Cooper, T. W. (2006). Of scripts and scriptures: Why plain people perpetuate a media fast. *Journal of American Culture*, *29*(2); 139-153.

Corbin, J., & Strauss, A. (2007). Basics of qualitative research: Techniques and procedures for developing grounded theory (3rd ed.). Thousand Oaks: CA: Sage Publications.

Creswell, J. W. (2002). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddle River, NJ: Pearson Education.

Creswell, J. W. (2007). Qualitative inquiry and research design: Choosing from five approaches. Thousand Oaks, CA: Sage

Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches (3rd ed.). Los Angeles: Sage Publications.

Cromartie, J. (2012, May 26). Population and migration. Economic Research Service. Washington, D.C., U.S. Department of Agriculture. Retrieved from http://www.ers.usda.gov/topics/rural-economy-population/populationmigration.aspx.

Cromartie, J. (May 26, 2012). *Population and Migration*. U.S. Department of Agriculture, Economic Research Service. Washington, D.C: Retrieved from http://www.ers.usda.gov/topics/rural-economy-population/population-migration.aspx.

Dai, D. (2010). Black residential segregation, disparities in spatial access to health care facilities, and late-stage breast cancer diagnosis in metropolitan Detroit. *Health and Place, 16*(5), 1038–1052.

Dankwa-Mullan, I., Rhee K. B., Williams, K., Sanchez, I., Sy, F. S., Stinson, N. Jr... (2010). The science of eliminating health disparities: summary and analysis of the NIH summit recommendations. *American Journal of Public Health,* 100*(S1), S12–8.*

de Silva, D. (May 9, 2011). Evidence: Helping people help themselves. A review of the evidence considering whether it is worthwhile to support self-management. Retrieved from https://www.hiirc.org.nz/page/25166/evidence-helping-people-to-

help-themselves/?tag=healthservicesresearch§ion=8959

Denzin, N. K., & Lincoln, Y. S. (2011). The sage handbook of qualitative research (3rd ed.). Thousand Oaks: Sage Publications.

DeVoe, J. E., Baez, A.; Angier, H.; Krois, L., Edlund, C., Carney, P. A. (2007). Insurance plus access does not equal health care: Typology of barriers to health care access for low-income families. *Annals of Family Medicine, 5*(6), 511-518.

Dimitrova, D. D. (2011). Access to primary health care services. *Folia Medica, 53*(1), 78-81.

Doescher, M. P., Skillman, S. M., & Rosenblatt, R. A. (2009). The crisis in rural primary care. Retrieved from http://depts.washington.edu/uwrhrc/uploads/Rural_Primary_Care_PB_2009.pdf

Donabedian, A. (1973). Aspects of medical care administration: Specifying requirements for health care. Cambridge MA: Harvard University Press.

Doodly, O., & Doodly, C. M. (2015). Conducting a pilot study: Case study of a novice researcher. British Journal of Nursing, *24*(21), 1074-1078.

Doyle, D. (March 8, 2013). Emergency rooms continue to serve as patients' primary-care provider. Retrieved from http://www.physicianspractice.com/blog/emergency-rooms-continue-serve-patients-primary-care-provider

Dworkin, S. N. (2012). Sample size policy for qualitative studies using in-depth interviews. *Archive of Sex Behavior, 41*, 1319-1320. doi: 10.1007/s10508-012-0016-6

Edward, K-L., & Welch, T. (2011). The extension of Colaizzi's method of

phenomenological enquiry. *Contemporary nurse, 39*(2), 163–171. doi:10.5172/conu.2011.163

Ems, L. (2014). “Amish workarounds: Toward a dynamic, contextualized view of technology use.” *Journal of Amish and Plain Anabaptist Studies*, *2*(1); 42-58.

Ems, L. (2015). Exploring ethnographic techniques for ICT non-use research: An Amish case study. *First Monday*, 20(11). http://dx.doi.org/10.5210/fm.v20i11.6312

Englander, M. (2012). The interview: Data collection in descriptive phenomenological human scientific research. *Journal of Phenomenological Psychology 43*(1), 13–35.

Ewing, J., & Hinkley, K. N. (2013). Meeting the primary care needs of rural America: Examining the role of non-physician providers. National Conference of State Legislatures. ISBN 978-1-58024-687-3.

Eyerman, J., Bowman, K., Butler, D., & Wright, D. (2005). The differential impact of incentives on refusals: Results from the 2001 National Household Survey on Drug Abuse incentive experiment. *Journal of Economic and Social Measurement, 30*(2-3), 157-169.

Fan, L., & Habibov, N. N. (2009). Determinants of accessibility and affordability of health care in post-socialist Tajikistan: Evidence and policy options. *Global Public Health, 4*, 561–574. doi:10.1080/17441690802128297

Ferrante, J. M., McCarthy, E. P.; Gonzalez, E. C., Lee, Ji-H., Chen, R., Love-Jackson, K… Roetzheim, R. G. (2011). Primary care utilization and colorectal Cancer outcomes among Medicare beneficiaries. *Archives of Internal Medicine; 171*(19),

1747-1757. doi:10.1001/archinternmed.2011.470

Finlay, L. (2009). Debating phenomenological research methods. *Phenomenology and Practice, 3*(1), 6-25.

Fisher, F. K. (2008). Mifflin County. Retrieved from https://books.google.com/books/about/Mifflin_County.html?id=opJaq1bOVrYC

Fisher, F. K. (2016). Mifflin County. Retrieved from https://www.arcadiapublishing.com/9780738555096/Mifflin-County

Flores, G. (2005). The impact of medical interpreter services on the quality of health care: A systematic review. *Medical Care Research and Review*, *62*(3), 255-299.

Flores, G. (2006). Language barriers to health care in the United States. *New England Journal of Medicine, 355*(3), 229-231. doi:10.1056/NEJMp058316

Flores, G., Laws, M. B., Mayo, S. J., Zuckerman, B., Abreu, M., Medina, L… (2003). Errors in medical interpretation and their potential clinical consequences in pediatric encounters. *Pediatrics*, *111*(1), 6-14.

Fradgley, E. A., Paul, C. L., & Bryant, J. (2015). A systematic review of barriers to optimal outpatient specialist services for individuals with prevalent chronic diseases: What are the unique and common barriers experienced by patients in high income countries*? International Journal for Equity in Health 2015, 14*(1), 52. doi:10.1186/s12939-015-0179-6

Freundlich, N. (June 12, 2013). Primary care: Our first line of defense. Retrieved from http://www.commonwealthfund.org/publications/health-reform-and-you/primary-care-our-first-line-of-defense

Gage, A. J., & Calixte, M. G. (2006). Effects of the physical accessibility of maternal health services on their use in rural Haiti. *Population Studies, 60*(3), 271–88.

Gibson, W., & Brown, A. (2009). Working with qualitative data. Beverly Hills, California: Sage Publications.

Giorgi, A. (2009). The descriptive phenomenological method in psychology: A modified Husserlian approach. Pittsburgh, PA: Duquesne University Press.

Gofin, J., & Gofin, R. (2005). Community-oriented primary care and primary health care. American Journal of Public Health, *95*, 757. doi:10.2105/AJPH.2004.060822

Gostin, L. A. (2007). Proposal for a framework convention on global health. *Journal of International Economic Law, 10*(4); 989-1008.

Greene, M. (1997). The lived world, literature and education. In D. Vandenberg (ed.), Phenomenology and Education Discourse (pp. 169-190). Johannesburg: Heinemann.

Grzybowski, F., Stoll, A., & Kornelsen, J. (2011). Distance matters: A population based study examining access to maternity services for rural women. *BMC Health Sciences Research, 11*(147), 1–8. doi: 10.1186/1472-6963-11-147 Retrieved from http://crhr.ca/publications

Gupta, D., & Denton, B. (2006). Appointment scheduling in health care: Challenges and opportunities**.** *IIE Transactions Journal*, *40*(9), 800-819. http://dx.doi.org/10.1080/07408170802165880

Himmelstein, D. U. (2009). Health insurance and mortality in U.S. adults. *American Journal of Public Health, 99*(12), 2289-2295.

Healthy People 2020. (2015). Access to health services. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services

Healthy People 2020. (2017). Access to health services. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services

Health Resources and Services Administration. (1995). Medically underserved areas/populations: Guidelines for MUA and MUP designation. U. S. Department of Health and Human Services. Retrieved from http://www.hrsa.gov/shortage/mua/index.html

Health Resources and Services Administration Data Warehouse. (n.d). MUA find results. U. S. Department of Health and Human Services. Retrieved from https://datawarehouse.hrsa.gov/tools/analyzers/MuaSearchResults.aspx

Health Resources and Services Administration Data Warehouse. (2016). MUA find. U. S. Department of Health and Human Services. Retrieved from https://datawarehouse.hrsa.gov/tools/analyzers/muafind.aspx

Horowitz, C. R., Robinson, M., & Seifer, S. (2009). Community-based participatory research from the margin to the mainstream: Are researchers prepared? Circulation, *119*(19), 2633-2642. doi: 10.1161/CIRCULATIONAHA.107.729863

Husserl, E. (1931). *Ideas* (W. R. Boyce Gibson, Translation). London: George Allen & 160 Unwin.

Hiscock, R., Pearce, J., Blakely, T., & Witten, K. (2008). Is neighborhood access to health care provision associated with individual-level utilization and satisfaction? *Health Services Research, 43*(6), 2183-200. doi: 10.1111/j.1475-6773.2008.00877.x ·

Holloway, I. (1997). Basic concepts for qualitative research. Oxford: Blackwell Science.

Haq, C. L., Hall, T., Thompson, D., Bryant, J. (2009). Primary health care: Past, present and future. Prepared as part of an education project of the global health education consortium and collaborating partners. Retrieved from http://www.cugh.org/sites/default/files/content/resources/modules/To%20Post%20Both%20Faculty%20and%20Trainees/27_Primary_Health_Care_PHC_Past_Present_Future_FINAL.pdf

Hacker, K. (2011). Introduction to clinical investigation. Retrieved from http://www.umb.edu/editor_uploads/images/Hacker_CBPR1011.pdf

Hoffman, C., Damico, A., & Garfield, R. (2011). Research brief: Insurance coverage and access to care in primary care shortage areas. The Kaiser Commission on Medicaid and the Uninsured. Washington, DC: Retrieved from https://kaiserfamilyfoundation.files.wordpress.com/2013/01/8161.pdf `

Healthy People 2020. (2014). Access to health services. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services. Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services.

Hill, M. L. (2006) Representin(g): Negotiating multiple roles and identities in the field

and behind the desk. *Qualitative Inquiry*, *12*(5), 926–49.

Healthy People 2020. (2015). Access to health services. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services

Health Resources and Services Administration. (October, 5 2012a). Primary medical care: HPSA designation criteria. Health Resources and Services Administration. Retrieved from http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/primarycarehpsacriteria.htm

Health Resources and Services Administration. (October, 5 2012b). Medically underserved areas and populations. Retrieved from http://bhpr.hrsa.gov/shortage/muaps/

Hayes, K., & Bloniarz, B. (January 10, 2013). Assessing payment adequacy: Physician and other health professional services. Medicare Payment Advisory Commission (MedPAC). Washington, D.C: Retrieved from http://www.medpac.gov/transcripts/phys%20Jan%202013%20-%20public.pdf.

Health Resources and Services Administration. (January 24, 2013). National health service corps. Retrieved from http://www. hrsa.gov/about/organization/bureaus/bcrs/nhscoverview.html

Healthy People 2020. (January 1, 2018). Mental health and mental disorders. U.S. Department of Health and Human Services. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-

mental-disorders

Institute for Healthcare Improvement. (2017). Shortening waiting times: Six principles for improved access. Retrieved from http://www.ihi.org/resources/Pages/ImprovementStories/ShorteningWaitingTimes SixPrinciplesforImprovedAccess.aspx

Institute of Medicine. (1993). Access to health care in America. Washington, DC: National Academy Press.

Institute of Medicine. (2001). Crossing the quality chasm: A new health system for the 21st century (pp. 337). Washington DC: National Academy Press.

Institute of Medicine. (January 9, 2013). U.S. health in international perspective: Shorter lives, poorer health. Washington DC: National Academy Press. Retrieved from http://www.nap.edu/read/13497/chapter/1#xii

International Conference on Primary Health Care. (1978). Declaration of Alma-Ata. Retrieved from http://www.who.int/publications/almaata_declaration_en.pdf https://www.scribd.com/document/16232791/Kaiser-Report-on-ARRA-Effects

Kaiser Commission on Medicaid and the Uninsured. (March, 2009). American recovery and reinvestment act (ARRA): Medicaid and healthcare providers. Community Health Centers (PDF Report). Kaiser Family Foundation. Retrieved from

Kaiser Family Foundation. (2009). Statefacts. Population distribution by metropolitan status, states (2008-2009), U.S. (2009). Retrieved from www.statehealthfacts.org.

Kaiser Family Foundation. (2011). Total number of medical school graduates (January 23, 2013). Retrieved from, from

http://www.statehealthfacts.org/comparemaptable. jsp?ind=434&cat=8

Kaiser Family Foundation. (2016). The Pennsylvania health care landscape. Retrieved from http://kff.org/health-reform/fact-sheet/the-pennsylvania-health-care-landscape/

Kim, Y. (2010). The pilot study in qualitative inquiry identifying issues and learning lessons for culturally competent research. *Qualitative Social Work*, *10*(2), 190-206. doi:10.1177/1473325010362001

Koshy, V. (2005). Action research for improving practice: A practical guide. (pp.1- 149). Sage Publication.

Kullgren, J. T. (June, 13 2011). Non-affordability barriers and access to care for United States adults. Robert Wood Johnson Foundation Clinical Scholars, Philadelphia VA Medical Center, Leonard Davis Institute of Health Economics, University of Pennsylvania. Retrieved from http://www.academyhealth.org/files/2011/monday/kullgren.pdf

Kumar, A. (2012). Using phenomenological research methods in qualitative health research. *International Journal of Human Sciences, 9*(2), 790-804. on-Medicaid

Laerd Dissertation. (2012). Purposive sampling. Retrieved from http://dissertation.laerd.com/purposive-sampling.php

Lean, A. C., Davis, L. L., & Kraemer, H. C. (2011). The role and interpretation of pilot studies in clinical research. *Journal of Psychiatric Research*, *45*(5), 626-629.

LeBlanc, S. (2012). Survey: access to mass. doctors improving slightly." Associated

Press (August 8, 2012). Retrieved from http://www.boston.com/news/local/massachusetts/2012/08/08/survey-accessmass-doctors-improving-slightly/iUmobYPYH8jwvduZ1rKrZI/story.html

Leddy, (2006). RIte care: Rhode Island's success in improving the health of children and families. *Rhode Island Medicine and Health, 89*(12), 391 -397.

Leigh, J. P., Tancredi, D., Jerant, A., Romano, P. S., & Kravitz, R. L. (2012). Lifetime earnings for physicians across specialties. *Medical Care, 50*(12), 1093-1101.

Lewistown Hospital, Mifflin Juniata County Human Services Department, Penn State Extension, & United Way of Mifflin-Juniata. (2013). The Mifflin Juniata human services needs assessment. Retrieved from http://www.co.mifflin.pa.us/dept/HS/Documents/2013_NeedsAssessment.pdf

Lewistown Hospital, Mifflin Juniata County Human Services Department, Penn State Extension, & United Way of Mifflin-Juniata. (2016). The Mifflin Juniata human services needs assessment. Retrieved from http://www.co.juniata.pa.us/wp-content/uploads/NeedsAssessment-2016.pdf

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Newbury Park, CA: Sage Publications.

Longhurst, R. (2009). Interviews: In-depth, semi-structured. *International Encyclopedia of Human Geography,* 580–584. doi:10.1016/B978-008044910-4.00458-2

Macinko, J., Starfield, B., & Shi, L. (2007). Quantifying the health benefits of primary care physician supply in the United States. *International Journal of Health Services, 37*(1), 111-126.

Mack, N., Woodsong, C., Macqueen, k. M., Guest, G., & Namely, E. (2011). Qualitative research methods: A data's collector field guide. Retrieved from http://www.fhi360.org/sites/default/files/media/documents/Qualitative%20Research%20Methods%20-%20A%20Data%20Collector%27s%20Field%20Guide.pdf

MacKinney, A. C., Coburn, A. F., Lundblad, J. P., McBride, T. D., Mueller, K. J., & Warson, J. D. (2014). Access to rural health care: A literature review and new synthesis. Rural Policy Research Institute, the Federal Office of Rural Health Policy, Health Resources and Services Administration, US Department of Health and Human Services, Grant U18RH03719.

Macmillan Dictionary. (2015). Nurse - definition and synonyms. Retrieved from http://www.macmillandictionary.com/dictionary/british/nurse_1

Mandal, A. (August 6, 2014). Disparities in access to health care. News Medical Life Sciences. Retrieved from https://www.news-medical.net/health/Disparities-in-Access-to-Health-Care.aspx

Mason, M. (2010). Sample size and saturation in PhD studies using qualitative interviews. Forum: *Qualitative Social Research, 11*(3), 8.

Massachusetts Medical Society. (July 15, 2013). MMS study shows patient wait times for primary care still long. Retrieved from http://www.massmed.org/News-and-Publications/MMS-News-Releases/MMS-Study-Shows-Patient-Wait-Times-for-Primary-Care-Still-Long/#.WcnBW4prxPM

McMillan, J. H., & Schumacher, S. (2010). Research in education: Evidence-based inquiry (7th ed.). (pp. 322). Boston, Pearson.

Medical Dictionary. (2015). Physician. Retrieved from http://medical-dictionary.thefreedictionary.com/Physicians

Menec, V. H., Sirski, M., & Attawar, D. (2005). Does continuity of care matter in a universally insured population? *Health Services Research*, 40(2), 389-400.

Mental Health America. (2017). Issue brief: Access to medications. Retrieved from http://www.mentalhealthamerica.net/issues/issue-brief-access-medications

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks: SAGE Publications, Inc.

Millman, M. (1993). Access to health care in America. Washington, DC: National Academy Press.

Minkler. M., & Wallerstein, N. (2008). Community-based participatory research for health (2nd ed.) (pp. 508). San Francisco CA: Jossey-Bass.

Minnesota Department of Health. (n.d). Community engagement. Retrieved from http://www.health.state.mn.us/communityeng/

Mosby's Medical Dictionary. (2009). Primary care (8th ed.). Retrieved from http://medical-dictionary.thefreedictionary.com/primary+care

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

Neo, F., Edward, K-L., Mills, C. (2013). Understanding compliance with protective eyewear amongst peri-operative nurses: A phenomenological inquiry. *Australian Journal of Advanced Nursing*, *31*(1), 20-27.

National Conference of State Legislatures. (2013). *Scope of practice legislative database (2011-2013*). Denver: Retrieved from http://www.ncsl.org/issues-research/health/scope-of-practice-legislation-tracking-database.aspx.

National Rural Health Association. (2013). What's different about rural health care? Retrieved from http://www.ruralhealthweb.org/go/left/about-rural-health

National Institutes of Health. (n.d). Community-based participatory research. Retrieved from https://obssr.od.nih.gov/scientific_areas/methodology/community_based_participatory_research/index.aspx

National Association of Community Health Centers. (2011). Removing barriers to care: Community health centers in rural areas. Retrieved from http://www.nachc.com/client/documents/Rural%20Fact%20Sheet%20-%20November%202011.pdf

National Association of Community Health Centers. (2009). The importance of primary health care. Retrieved from www.nachc.com/research-data.cfm.

Neuwelt, P. M. (2012). Community participation in primary care: what does it mean 'in practice? *Journal of Primary Health Care, 4*(1), 30–38.

National Policy Consensus Center. (2004). Improving health care access: Finding solutions in a time of crisis. Collaborative problem solving for states and communities. Report on a colloquium on community-based approaches to health care access in the United States. Retrieved from http://www.policyconsensus.org/publications/reports/docs/Healthcare.pdf

National Institute of Health. (2013). CBR. Research Portfolio Online Reporting Tools (RePORT). U.S. Department of Health and Human Services. Retrieved from https://report.nih.gov/nihfactsheets/ViewFactSheet.aspx?csid=35&key=C

Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence Based Nursing, 18*(2), 34-35. doi:10.1136/eb-2015-102054

Neutens, T. (2015). Accessibility, equity and health care: review and research directions for transport geographers. *Journal of Transport Geography,* 43, 14-27. doi:10.1016/j.jtrangeo.2014.12.006

National Institute of Mental Health. (December 8, 2010). National Institute of Mental Health strategic plan. Retrieved from https://www.nimh.nih.gov/about/strategic-planning-reports/index.shtml

National Institute of Health. (March 9, 2013). CBR. Research Portfolio Online Reporting Tools. Retrieved from https://report.nih.gov/nihfactsheets/ViewFactSheet.aspx?csid=35

National Association of Community Health Centers. (January 16, 2013). United States: Health centers fact sheet. Retrieved from http://www.nachc.com/client/ US11.pdf

O'Reilly, M., & Parker, N. (2013). 'Unsatisfactory Saturation': a critical exploration of the notion of saturated sample sizes in qualitative research. *Qualitative Research, 13*(2), 190-197.

Obama, B. (February, 22 2010). Policies to improve affordability and accountability: Increase tax credits for health insurance premiums. Retrieved from https://www.whitehouse.gov/health-care-

meeting/proposal/whatsnew/affordability

Olah, M. E., Gaisano, G., & Hwang, S. W. (2013). The effect of socioeconomic status on access to primary care: An audit study. *Canadian Medical Association Journal*, *185*(6), E263–E269. doi: 10.1503/cmaj.121383

Oldendick, R. (2012). Survey research ethics. In L. Gideon (Ed.), Handbook of Survey Methodology for the Social Sciences, (pp. 23-35). Springer Science Business Media: New York.

Onwuegbuzie, A. J., & Collins, K. M. T. (2007). A typology of mixed methods sampling design in social science research. The Qualitative Report, 12, 281–316. Retrieved from http://www.nova.edu/ssss/QR/QR12-2/onwuegbuzie2.pdf

Onwuegbuzie, A. J., & Leech, A. N. (2007). Sampling designs in qualitative research: Making the sampling process more public. *The Qualitative Report, 12*, 238–254. Retrieved from http://www.nova.edu/ssss/QR/QR12-2/onwuegbuzie1.pdf

Pan American Health Organization. (2007). Regional strategy and plan of action on an integrated approach to the prevention and control of chronic diseases. Washington DC.

Pandhi N, & Saultz, J. W. (2006). Patients' perceptions of interpersonal continuity of care. *Journal of American Board Family of Medicine*, *19*(4), 390-397.

Penchansky, R., & Thomas, J. W. (1981). The concept of access: Definition and relationship to consumer satisfaction. *Medical Care, 19*, 127–140. Retrieved from http://journals.lww.com/lww-medicalcare/pages/default.aspx

Pennsylvania Department of Health. (2012). National benchmark for suicide rates.

Retrieved from PA Department of Health, 2012 national benchmark for suicide rates

Pennsylvania Rural Health Association. (2010). Pennsylvania rural health care. Retrieved from PARuralHealth_StatusCheck5.pdf

Pennsylvania Rural Health Association. (2010). Pennsylvania rural health care. Retrieved from PARuralHealth_StatusCheck5.pdf

Pennsylvania Youth Survey. (2015). Pennsylvania youth survey state report pays. Retrieved from http://www.pccd.pa.gov/Juvenile-Justice/Documents/PAYS/2015%20PAYS%20State%20Report%20082816.pdf

Petterson, S. M., Liaw, W. R., Phillips, R. L., Meyers, D. S., & Bazemore, A. W. (2012). Projecting US primary care physician workforce needs: 2010-2025. *Annals of Family Medicine, 10*(6), 503-509.

Phillips, R. L. Jr., & Bazemore, A. W. (2010). Primary care and why it matters for U.S. health system reform. *Health Affairs, 29*(5), 806-10. Retrieved from http://content.healthaffairs.org/content/29/5/806.full

Pitts, S. R., Carrier, E. R., Rich, E. C., Kellermann, A. L. (2010). Where American get acute care: Increasingly, it's not at their doctor's office. *Health Affairs, 29*(9), 1620-29.

Polit, D. F., & Beck, C. T. (2010). *Essentials of nursing research: Appraising evidence for nursing practice* (7th ed.). Wolters Kluwer Health/Lippincott Williams & Wilkins: Philadelphia.

Polit, D.F., Beck, C.T., & Hungler, B.P. (2001). *Essentials of nursing research: Methods,*

appraisal, and utilization (5th ed.). Philadelphia: Lippincott.

Prasad, K. N., Ingalgeri, B. M., Poovitha, R., Suchi, V., Vaishnavi, V., Vidya, G., Vignesh, G… (2015). Utilization of health facilities at primary health center by rural community of Pondicherry. *International Archives of Integrated Medicine, 2*(2), 71-76.

Preston, R. 1., Waugh, H., Larkins, S., & Taylor, J. (2010). Community participation in rural primary health care: Intervention or approach? *Australian Journal of Primary Health*, *16*(1),4-16.

Radley, D. C., & Schoen, C. (2012). Geographic variation in access to care: The relationship with quality. *New England Journal of Medicine, 367*(1), 3–6.

Rapport, F. F., & Wainwright, P. (2006). Phenomenology as a paradigm of movement. *Nursing Inquiry, 13*(3), 228–236. doi: 10.1111/j.1440-1800.2006.00325.x

Rhode Island Department of Health. (2012). Impact of primary care on healthcare cost and population health A literature review. Retrieved from file:///C:/Users/Ann/Desktop/ImpactOfPrimaryCareOnHealthcareCostAndPopulationHealth.pdf

Richards, L. (2009). *Handling qualitative data: A practical guide* (2nd ed.). London: Sage.

Ricketts, T. C., & Goldsmith, L. J. (2005). Access in health services research: The battle of the frameworks. *Nursing Outlook, 53*(6), 274–280.

Robert Hood Johnson Foundation. (2011). *The future of nursing: Leading change, advancing health*. Committee on the Robert Wood Johnson Foundation Initiative

on the Future of Nursing at the Institute of Medicine. Washington DC: National Academies Press. ISBN-13: 978-0-309-15823-7 ISBN-13: 978-0-309-15824-4. Retrieved from https://nursing.unc.edu/files/2013/12/Future-Nursing-Report-IOM.pdf

Robert Wood Johnson Foundation. (July, 2008). Creswell's evaluative criteria. Retrieved from http://www.qualres.org/HomeCres-3682.html

Rude, D. A. (2013). Developing emotional intelligence in leaders: A qualitative research approach. *The International Journal for Transformative Emotional Intelligence*, *2*, 21-34. UMI Number: 3557503

Ruiz-Moral, R., Perez, R. E., Perula de Torres, L. A., de la Torre, J. (2006). Physician-patient communication: A study on the observed behaviors of specialty physicians and the ways their patients perceive them. *Patient Education and Counseling, 64*(1-3), 242-8.

Rural Health Information Hub. (2016). Healthcare Access in Rural Communities. Retrieved from https://www.ruralhealthinfo.org/topics/healthcare-access#barriers

Rutherford, M. E., Mulholland, K., & Hill, P. C. (2010). How access to health care relates to under-five mortality in sub-Saharan Africa: Systematic review. *Tropical Medicine & International Health, 15*, 508–519. doi:10.1111/j.1365-3156.2010.02497.x

Salimi, Y., Shahandeh, K., Malekafzali, H., Loori, N., Kheiltash, A., Jamshidi, E… (2012). Is Community-based participatory research (CBPR) useful? A systematic

review on papers in a decade. *International Journal of Preventive Medicine, 3*(6), 386–393.

Saloner, B., Polsky, D., Friedman, A., & Rhodes, K. (2015). Primary care appointment availability and preventive care utilization: Evidence from an audit study. *Medical Care Research and Review, 72*(2), 149-67. doi: 10.1177/1077558715569541.

Sanders, B. (2013). Primary care access 30 million new patients and 11 months to go: Who will provide their primary care? A report from chairman Bernard Sanders subcommittee on primary health and aging U.S. senate committee on health, education, labor and pensions. Retrieved from http://www.sanders.senate.gov/imo/media/doc/PrimaryCareAccessReport.pdf

Sandy, L. G., Bodenheimer, T., Pawlson, L. G., & Starfield, B. (2009). The political economy of U.S. primary care. *Health Affairs, 28*(4), 1136-1145. doi: 10.1377/hlthaff.28.4.1136

Saultz, J. W., & Lochner, J. (2005). Interpersonal continuity of care and care outcomes: a critical review. *Annals of Family Medicine*, *3*(2),159-166.

Savedoff, W. D. (2009). A moving target: Universal access to healthcare services in Latin America and the Caribbean. Inter-American Development Bank, Research Department Working Paper #667. Retrieved from http://www.iadb.org/res/publications/pubfiles/pubWP-667.pdf

Schneider, K.C. (1985). Uninformed response rates in survey research: new evidence. *Journal of Business Research,* 153-62.

Schoen, C., Osborn, R., How, S. K. H., Doty, M. M., & Peugh, J. (2009). In chronic condition: Experiences of patients with complex health care needs, In eight countries. *Health Affairs, 28*(1), w1-w16. doi: 10.1377/hlthaff.28.1.w1

Schoen, C., Osborn, R., Squires, D., Doty, M., Rasmussens, P., Pierson, R., & Applebaum, S. (2012). A survey of primary care doctors in ten countries shows progress in use of health information technology: Less in other areas. *Health Affairs,* 31*(12), 2805-16.*

Schuemann, K. B. (2014). *A phenomenological study into how students experience and understand the university presidency*. Western Michigan University.

Schutt, R. (n.d). Some definitions and dimensions of social change. Retrieved from http://www.vernalproject.org/papers/change/ChangeDimen.pdf

Schwandt, T. A., Lincoln, Y. S., & Guba, E. G. (2007). Judging interpretations: But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New directions for evaluation*, *2007*(114), 11-25. doi: 10.1002/ev.223

Sclove, Re. E., Scammell, M. L., & Holland, B. (1998). CBR in the United States: An introductory reconnaissance, including twelve organizational case studies and comparison with the Dutch science shops and the mainstream American research system. The Loka Institute Amherst, Massachusetts USA. Retrieved from http://www.loka.org/crn/lokareport.pdf

Segen's Medical Dictionary. (2012). Primary care services. Retrieved from http://medical-dictionary.thefreedictionary.com/primary+care+services

Shi, L. (2012). The impact of primary care: A focused review. Scientifica, *2012*(2012), 1-

22. http://dx.doi.org/10.6064/2012/432892

Shi, L., Macinko, J., Starfield, B., Politzer, R., Xu, J. (2005). Primary care, race, and mortality in US states. *Journal of Social Science and Medicine, 61*(1), 65-75.

Shneiderman, B., & Plaisant, C. (2005). Designing the user interface. Chapter 14.5: Information visualization (pp. 580–603). Boston: Pearson.

Simon; M. K., & Goes, J. (2011). Dissertation and scholarly research: Recipes for Success (11th ed.). A Practical Guide to Start and Complete your Dissertation, Thesis, or Formal Research Project. Paperback, ISBN: 1461096316.

Simonds, V. W., Wallerstein, N., Duran, B., & Villegas, M. (2013). Community-based participatory research: Its role in future cancer research and public health practice. *Preventing Chronic Disease, 10*, 120-205. doi:http://dx.doi.org/10.5888/pcd10.120205

Simonds, V. W., Wallerstein, N., Duran, B., & Villegas, M. (2014). The future of Community-based participatory research in cancer research and public health practice. *Prevention and Chronic Disease, 10*, 120-205. doi: http://dx.doi.org/10.5888/pcd10.120205

Sinsky, C. A., Willard-Grace, R., Schutzbank, A. M., Sinsky, T. A., Margolius, D., & Bodenheimer. T. (2013). In search of joy in practice: A report of 23 high-functioning primary care practices. *Annals of Family Medicine*, *11*(3), 272-278.

Smith, J. A., & Osborn, M. (2007). Qualitative psychology: Interpretative Phenomenological Analysis (Ch. 4, pp. 53-80). Retrieved from

https://www.sagepub.com/sites/default/files/upm-binaries/17418_04_Smith_2e_Ch_04.pdf

Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretive phenomenological analysis: Theory, method, and research*. Washington, DC: Sage.

Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of primary care to health systems and health. *Milbank Quarterly, 83*(3), 457–502. doi: 10.1111/j.1468-0009.2005.00409.x

Steiner, B. D., Denham, A. C., Ashkin, E., Newton, W. P., Wroth, T., & Dobson Jr., L. (2008). Community Care of North Carolina: Improving Care through Community Health Networks. *Annals of Family Medicine, 6*(4), 361-367. doi:10.1370/afm.866

Stephen M. Petterson, S. M., Liam, W. R., Phillips, R. L., Rabin, D. L., Meyers, D. S., & Bazemore, A. W. (2012). Projecting US primary care physician workforce needs: 2010-2025. *Annals of Family Medicine, 10*(6), 503-509.

Streubert, H. J., & Carpenter, D. R. (2011). *Qualitative research in nursing: Advancing the humanistic imperative* (5th ed.). Wolters Kluwer Health/Lippincott Williams & Wilkins: Philadelphia.

Tabler, J., Scammon, D. L., Jaewhan, K. P., Farrell, T., Andrada, T-C., & Magill, M. K. (2014). Patient care experiences and perceptions of the patient-provider relationship: A mixed method study. *Patient Experience Journal*, *1*(1), 75-87.

Tang, N., Stein, J., Hsia, R. Y., Maselli, J. H., & Gonzales, R. (2010). Trends and characteristics of US emergency department visits (1997-2007). *Journal of*

American Medical Association, *304*(6), 664-670.

Tarrant, C., Angell, E., Baker, R., Freeman, G., Boulton, M., Wilkie, P... (n.d).How responsive are primary care services to their patients' needs? Development of a patient Questionnaire. Retrieved from https://www2.le.ac.uk/departments/health-sciences/research/soc-sci/pdfresources/Responsiveness%20summary%20L%20March%2010%20team%20details.pdf

Taylor, J. (August 31, 2004). *The fundamentals of community health centers* (PDF Report). National Health Policy Forum. Washington, DC: Retrieved from http://www.ww.nhpf.org/library/background-papers/BP_CHC_08-31-04.pdf

The Kaiser Commission on Medicaid and the Uninsured. (2014). The Affordable Care Act and insurance coverage in rural areas. Issue Brief. Retrieved from https://www.statereforum.org/system/files/8597-the-affordable-care-act-and-insurance-coverage-in-rural-areas1.pdf

The National Advisory Committee on Rural Health and Human Services. (April, 2005). The 2005 report to the secretary: Rural health and human services issues. The National Advisory Committee on Rural Health and Human Services. Retrieved from http://www.hrsa.gov/advisorycommittees/rural/2005_secretary's_report.pdf

The Network for Public Health Law. (n.d). Primary care provider capacity and the Medicaid expansion. Issue Brief. Robert hood Johnson Foundation. Retrieved from https://www.networkforphl.org/_asset/444n0k/Medicaid-Expansion-Provider-Capacity-Issue-Brief.pdf

Thomas, D. R. (2003). A general inductive approach for qualitative data analysis. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.462.5445&rep=rep1&type=pd

Tobler, L. (2010). A primary problem. Retrieved from http://www.ncsl.org/research/health/a-primary-problem.aspx

Trochim, W. M. K. (2006). The research methods: Knowledge base. Retrieved from http://www.socialresearchmethods.net/kb/qualval.php

Trochim, W. M. K., & Donnelly, J. P. (2008). The research methods: Knowledge base. (3rd ed.). Mason, OH: Cengage Learning.

Tucker, F. & Tucker, J. (1985). An evaluation of patient satisfaction and level of physician training. *Journal of Health Care Marketing, 5*(3), 31-38.

U.S. Bureau of Labor and Statistics. (2012). Health administrator. Retrieved from http://www.bls.gov/ooh/Management/Medical-and-health-services-managers.htm

United Nations Population Fund. (2010). Fostering effective and harmonized partnerships towards achieving measurable results for MDGs 4, 5 and 6: UNFPA Nigeria's development assistance to health system strengthening. Retrieved from http://nigeria.unfpa.org/healthsystemsstregt.html

United States Census Bureau. (2000). Census 2000 gateway. Retrieved from http://www.census.gov/main/www/cen2000.html

United States Census Bureau. (2014). Quickfacts: Mifflin County, Pennsylvania. Retrieved from http://www.census.gov/quickfacts/table/PST045215/42087

United States Census Bureau. (2016). Income, poverty and health insurance coverage in the United States (2015). Retrieved from https://www.census.gov/newsroom/press-releases/2016/cb16-158.html

United States Census Bureau. (2016). Quickfacts. Retrieved from https://www.census.gov/quickfacts/fact/table/mifflincountypennsylvania,US/PST04

United States Department of Health and Human Services. (2016). MUA find. Retrieved from http://datawarehouse.hrsa.gov/tools/analyzers/muafind.aspx 2016

ent.pdf

http://www.enope.eu/media/14615/a_series_of_short_discussion_topics_on_diffe

http://www.who.int/topics/health_systems/en/

Retrieved from http://www.who.int/whr/2003/chapter7/en/index7.html

The International alliance of Patients Organizations (IaPO). Retrieved from

Thousand Oaks: Sage Publications.

Weisz, D., Gusmano, M. K., Wong, G., & Trombley II, J. (2015). Emergency department use: A reflection of poor primary care access? *The American Journal of Managed Care*, *21*(2), e152-e160.

Whelan, E-M. (August 9, 2010). The importance of community Health Centers: Engines of economic activity and job creation. Center for American Progress. Retrieved from https://cdn.americanprogress.org/wp-content/uploads/issues/2010/08/pdf/chc.pdf

Willis, J. (2007). Foundations of qualitative research: Interpretive and critical approaches.

Wilper, A. P., Woolhandler, S., Lasser, K. E., McCormick, D., Bor, D. H., &

Wong-Rieger, D. (n.d). Patient empowerment: Living with chronic disease.

World Health Organization Europe. (1978). Declaration of Alma-Ata. Retrieved from http://www.euro.who.int/__data/assets/pdf_file/0009/113877/E93944.pdf

World Health Organization. (2004). How to investigate the use of medicines by consumers. Retrieved from http://apps.who.int/medicinedocs/en/d/Js6169e/5.4.html

World Health Organization. (2015a). Health systems: Principled integrated care.

World Health Organization. (2015b) Health systems. Retrieved from

World Health Organization. (2017). Integrated chronic disease prevention and control. Retrieved from http://www.who.int/chp/about/integrated_cd/en/

Wyszewianski, L., & McLaughlin, C. G. (2002). Access to care: Remembering old lessons. *Health Services Research, 37*(6); 1441-1443. doi: 10.1111/1475-6773.12171

Appendix A: Study Flyer

Survey to help improve access to primary care in Mifflin County.

- Share your experience and opinions about healthcare in Mifflin County.
- Describe what you know about primary care in Mifflin County townships.

Who can participate?

- Physicians/Nurses with 5+ years' experience in local health centers or clinics.
- Mifflin County Residents 18+ years who have lived here for 5 or more years.

How do I find out more or sign up to participate?

- Contact the researcher: Ann Eneh, [redacted]
- Collect informational leaflet at your local community health center, town hall or schools.

Appendix B: Interview Questions for Physicians

Name and Title of Physician:

Date:

Thank you for agreeing to be interviewed about your perceptions regarding residents' access to primary care services in Mifflin County.

Today, I am going to be asking you about your experience with Primary Care in Mifflin County. The term 'primary care' refers to doctors, nurses and other healthcare professionals who provide a first point of contact for patients in the community.

Let me start by defining access: Is the ability to receive primary care services when and where you need it.

1. First, how would you describe residents' ability to access primary care services in this community?
2. What kinds of people use primary care services the most in this community?
3. What types of primary care services are available in your community?
4. How responsive are healthcare providers to community residents' primary care needs?
5. What types of primary care services are affordable in your community?
6. How responsive are community residents to primary care services provided by members of the healthcare team?
7. What procedures are in place to accommodate residents' complaints or reports about poor service?

8. What do you perceive to be the main challenges or barriers that affect residents' access to primary care services?

9. What solutions could you suggest?

10. How do you perceive primary care might be made more accessible for community residents in Mifflin County?

Community-based research (CBR) provides professional researchers with a tremendous opportunity to use their skills to solve community problems, and to learn from community members how their expertise can be used to effect change.

11. What do you see as the role of community-based research in primary care services for rural residents?

12. What benefit do you see for meeting with local community leaders/residents to discuss how to improve primary care?

13. Would you be willing to do so?

Conclusion: Is there anything else you would like to tell me?

Thank you for your time. I will be showing you the results of our interview discussion via e-mail communication.

Appendix C: Interview Questions for Nurses

Names and Titles of Participant:

Date:

Thank you for agreeing to be interviewed about your perceptions regarding residents' access to primary care services in Mifflin County Townships.

Today, I am going to be asking you about your experience with Primary Care in Mifflin County. The term 'primary care' refers to doctors, nurses and other healthcare professionals who provide a first point of contact for patients in the community.

Let me start by defining access: It is the ability to receive primary care services when and where you need it.

1. How would you describe resident's ability to access primary care services in this community?
2. What kinds of people use primary care services the most in this community?
3. What types of primary care services are available in your community?
4. How responsive are healthcare providers to community residents' primary care needs?
5. What types of primary care services are affordable in your community?
6. How responsive are community residents to the primary care services provided by members of the healthcare team?
7. What procedures are in place to accommodate residents' complaints or reports about poor service?

8. What do you perceive to be the main challenges or barriers that affect residents' access to primary care services?

9. How do you perceive primary care might be made more accessible for community residents in Mifflin County?

10. What solutions could you suggest?

Community-based research (CBR) provides professional researchers with a tremendous opportunity to use their skills to solve community problems, and to learn from community members how their expertise can be used to effect change.

11. What do you see as the role of community-based research in primary care services for rural residents?

12. What benefit do you see for meeting with local community leaders/residents to discuss how to improve primary care?

13. Would you be willing to do so?

Conclusion: Is there anything else you would like to tell me?

Thank you for your time. I will be showing you the results of our survey via e-mail communication.

Appendix D: Interview Questions for Residents

Names and Titles of Participant:

Date:

Thank you for agreeing to answer a few questions about your perceptions regarding residents' access to primary care services in Mifflin County Townships.

Today, I am going to be asking you about your experience with Primary Care in Mifflin County. The term 'primary care' refers to doctors, nurses and other healthcare professionals who provide a first point of contact for patients in the community.

Let me start by defining access: It is the ability to receive primary care services when and where you need it.

1. What types of primary care services are available in your community?
2. What types of primary care services are difficult to access in your community?
3. How willing are healthcare providers to accommodate to your primary care needs?
4. What types of primary care services are covered by insurance in your area?
5. What happens when your nearest hospital is not in your network of providers?
6. To what extent do you think your primary care provider understands your situation?
7. How do you or your family member get to the clinic when you are sick?
8. Can you please describe a situation in which you were unable to access the primary care services in your community? Exactly what happened?
9. Can you tell me more about the incident?

10. How has this memory affected your life? What kind of impact has it had on your life?

11. What procedures are in place to accommodate people's complaints or reports about poor service?

12. Do you know anyone who has ever complained? What happened?

13. We have talked about some of the reasons why people do not always get the primary care they need. Are there other problems people experience when trying to get medical help?

14. What solutions can you suggest?

15. How do you perceive primary care services might be made more accessible for people living in your community?

Community-based research (CBR) provides professional researchers with a tremendous opportunity to use their skills to solve community problems, and to learn from community members how their expertise can be used to effect change.

16. What do you see as the role of community-based research in primary care access?

17. What benefit do you see for meeting with local community leaders/members to discuss how to improve primary care services?

18. Would you be willing to do so?

Conclusion: Is there anything else you would like to tell me?

Thank you for your time. I will be showing you the results of our interview discussion via your local community newsletter.

Appendix E: Survey Questions for Physicians/Nurses/Residents

Part I should be completed by physicians only.

Part II should be completed by nurses only.

Part III should be completed by residents only.

Part I for Physicians Only

Access definition: the ability to receive primary care services when and where you need it.

1. How would you describe resident's ability to access primary care services in this community?
2. What kinds of people use primary care services the most in this community?
3. What types of primary care services are available in your community?
4. How responsive are healthcare providers to community residents' primary care needs?
5. What types of primary care services are affordable in your community?
6. How responsive are community residents to the primary care services provided by members of the healthcare team?
7. What procedures are in place to accommodate residents' complaints or reports about poor service?
8. What do you perceive to be the main challenges or barriers that affect residents' access to primary care services?
9. How do you perceive primary care might be made more accessible for community residents in Mifflin County?

10. What solutions could you suggest?

Community-based research (CBR) provides professional researchers with a tremendous opportunity to use their skills to solve community problems, and to learn from community members how their expertise can be used to effect change.

11. What do you see as the role of community-based research in primary care services for rural residents?

12. What benefit do you see for meeting with local community leaders/residents to discuss how to improve primary care?

13. Would you be willing to do so?

Conclusion: Is there anything else you would like to tell me?

Thank you for your time. I will be showing you the results of our survey via e-mail communication.

Part II for Nurses Only

Access definition: the ability to receive primary care services when and where you need it.

1. How would you describe resident's ability to access primary care services in this community?

2. What kinds of people use primary care services the most in this community?

3. What types of primary care services are available in your community?

4. How responsive are healthcare providers to community residents' primary care needs?

5. What types of primary care services are affordable in your community?

6. How responsive are community residents to the primary care services provided by members of the healthcare team?

7. What procedures are in place to accommodate residents' complaints or reports about poor service?

8. What do you perceive to be the main challenges or barriers that affect residents' access to primary care services?

9. How do you perceive primary care might be made more accessible for community residents in Mifflin County?

10. What solutions could you suggest?

Community-based research (CBR) provides professional researchers with a tremendous opportunity to use their skills to solve community problems, and to learn from community members how their expertise can be used to effect change.

11. What do you see as the role of community-based research in primary care services for rural residents?

12. What benefit do you see for meeting with local community leaders/residents to discuss how to improve primary care?

13. Would you be willing to do so?

Conclusion: Is there anything else you would like to tell me?

Thank you for your time. I will be showing you the results of our survey via email communication.

Part III for Residents Only

Access definition: the ability to receive primary care services when and where you need it.

1. What types of primary care services are available in your community?

2. What types of primary care services are difficult to access in your community?

3. How willing are healthcare providers to accommodate to your primary care needs?

4. What types of primary care services are covered by insurance in your area?

5. What happens when your nearest hospital is not in your network of providers?

6. To what extent do you think your primary care provider understands your situation?

7. How do you or your family member get to the clinic when you are sick?

8. Can you please describe a situation in which you were unable to access the primary care services in your community? Exactly what happened?

9. Can you tell me more about the incident?

10. How has this memory affected your life? What kind of impact has it had on your life?

11. What procedures are in place to accommodate people's complaints or reports about poor service?

12. Do you know anyone who has ever complained? What happened?

13. We have talked about some of the reasons why people do not always get the primary care they need. Are there other problems people experience when trying to get medical help?

14. What solutions can you suggest?

15. How do you perceive primary care services might be made more accessible for people living in your community?

Community-based research (CBR) provides professional researchers with a tremendous opportunity to use their skills to solve community problems, and to learn from community members how their expertise can be used to effect change.

16. What do you see as the role of community-based research in primary care access?

17. What benefit do you see for meeting with local community leaders/members to discuss how to improve primary care services?

18. Would you be willing to do so?

Conclusion: Is there anything else you would like to tell me?

Thank you for your time. I will be showing you the results of our interview discussion via your local community newsletter.

Appendix F: Letter of Permission from Brown Township

June 6, 2017

Ann Eneh

Dear Ms. Eneh,

Thank you for visiting Brown Township and requesting assistance in conducting a research study on "Access to Primary Care in Pennsylvanian Rural Townships."

I am pleased to inform you that the Board of Supervisors have agreed to assist you with your study.

We look forward to working with you and please do not hesitate to contact us with any questions you might have.

Sincerely,

Teresa L. King
Township Secretary

Appendix G: Letter of Permission from Bratton Township

June 12, 2017

Dear Mrs. Eneh,

Thank you for visiting our community in Bratton Township and requesting for assistance in conducting a research study on "Access to Primary Care in Pennsylvanian Rural Townships."

The Board of Supervisors have agreed to assist you with your study.

Please, do not hesitate to contact us with any questions you might have.

Sincerely,

Sally Simone

Sally Simone
Township Secretary

Appendix H: Letter of Permission from Kistler Borough Council

July 19, 2017

Ann Eneh

Dear Ms. Eneh:

Please accept this letter as confirmation that Kistler Borough Council has agreed to support your efforts in your research study on Primary Care in Rural Pennsylvania.

Sincerely,

Cynthia S. Hobbs
Borough Secretary

Appendix I: Letter of Permission from Menno Township

July 5, 2107

Dear Mrs. Ench:

Thank you for visiting and taking an interest in Menno Township. As you know, Menno Township is a very rural Township. We appreciate your willingness to conduct a research study on "Access to Primary Care in Pennsylvania Rural Townships."

The Board of Supervisors have agreed to assist you with your study.

Please contact us with any questions or comments you have.

Sincerely,

Harold E. Johnson, Jr.

Supervisor-Secretary-Treasurer

Appendix J: Letter of Permission from Newton Hamilton Borough Council

Newton Hamilton Borough Council
President Gerald E Kane
P O Box 89
Newton Hamilton, Pa 17075
6/20/17

Ann Eneh

Dear Mrs Eneh,

Thank you for visiting Newton Hamilton Borough. We enjoyed our time talking with you . And we appreciate you including our small borough in your research study on *Access to Primary Care in Rural Pa Townships.*

We, as a borough agree to assist you with your study. We hope the information we've submitted thus far has been helpful.

We look forward to working with you. Please call with any questions of updates on your findings.

Sincerely,

Gerald E Kane

Gerald E Kane, President
Newton Hamilton Borough

Appendix K: Letter of Permission from Newton Hamilton Borough Secretary

NEWTON HAMILTON BOROUGH

P.O. BOX 63

NEWTON HAMILTON, PA 17075

06/21/2017

To Whom It May Concern:

The Newton Hamilton Borough would like to help participate with the research study on "Access to primary care in Pennsylvanian Rural Townships."

The council has agreed to help participate with this study and if you need anything else please let us know.

Sincerely,

Laura V Johnson

Newton Hamilton Borough Secretary

Appendix L: Letter of Permission from Oliver Township

June 27, 2017

Dear Ann Eneh,

Thank you for visiting our community in Oliver Township and requesting assistance with conducting a research study on "Access to Primary Care in Pennsylvanian Rural Townships." We have agreed to help you with your study. If you have any questions please do not hesitate to call our office at [redacted]

Sincerely,

Kristy Bagrosky

Oliver Township Secretary,Treasurer

Appendix M: Letter of Permission from Union Township

June 30, 2017

Dear Mrs. Eneh,

Thank you for visiting our community in Union Township and requesting for assistance in conducting a research study on the "Access of Primary Care in Pennsylvania Rural Townships." The Board of Supervisors have agreed to assist you with your study.

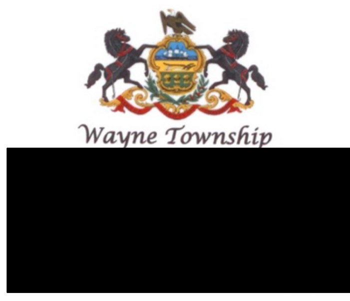
Please do not hesitate to contact us with any questions you might have.

Sincerely,

Michelle L. Shirey
Union Township Secretary

CC: Files

Appendix N: Letter of Permission from Wayne Township



June 6, 2017

Walden University
% Ann Eneh

Dear Ms. Eneh:

Thank you for visiting Wayne Township and requesting our assistance in conducting a research study on "Access to Primary Care in Pennsylvania Rural Townships." The Board of Supervisors has agreed to assist you with your study for your grad project.

Please, do not hesitate to contact us for any questions you might have.

Sincerely,
Wayne Township Supervisors

Theodore M Reed

Theodore M. Reed
Chairman

Appendix O: Letter from Advisory Board

May 15, 2017

To Whom It May Concern:

This letter is to affirm that the individuals who have affixed their signatures below constitute the Advisory Board for Ann Eneh's study, "Perceptions of Rural Residents and Healthcare Providers in Mifflin County, Pennsylvania, Regarding Access to Primary Care in Pennsylvanian Rural Townships".

Ms. Eneh is conducting this study as part of her doctoral work at Walden University. The responsibilities of the Advisory Board are to: (1) review the questions in the study and (2) review the results at the end of the study to determine if the results are consistent with the answers provided by the participants.

There is no compensation involved.

Jan M. Peachey 5-16-17

Jan Peachey

Teresa L. King 5-16-17

Teresa King

Kay Hamilton 5-15-17

Kay Hamilton

Appendix P: Identified Themes

Dissertation | **Editor**

AMERICA'S PREMIER DISSERTATION & THESIS EDITING SERVICE

2nd Coder's Identified Themes

- Availability

Lack of community clinics

- Accessibility

Traveling distances to care facilities Transportation

Health insurance issues

- Accommodation

Patient's complaints or reports about poor service

Patient groups (elderly)

Amish community

- Affordability

Cost

High deductibles

Lack of or inadequate health insurance

Limits on Medicaid Access Card

- Acceptability

Provider responsiveness of healthcare providers

P. Allen Roda

Peter Allen Roda
COO and Lead Consultant
Dissertation Editor

Appendix Q: Certificate of Completion

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Ann Eneh** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 12/08/2013.

Certification Number: 1341285.

Appendix R: Participating Townships and Codes

Tables Q1 through Q9 showcase participating townships and boroughs in Mifflin county as well as all the codes assigned to participants in the study. Purposive sampling was used to collect data. Most of these townships and boroughs have no community clinics, hospitals or libraries available to them. However, some of them had just fire stations and post offices located within their communities.

Brown Township

I called Brown Township Office and spoke with the road master. I introduced myself and asked for assistance with conducting research on primary care access. The supervisor gave me a date to come and meet with others at the township office. Following the meeting, I laid out my plan on how best they could assist with the research. They agreed to participate and offered their support. I put together an advisory board consisting of (1 Registered Nurse, 1 secretary from Brown township, and 1 resident). The role of my advisory board was to ensure that the questions asked will cover the issues as experienced by community members and that my interpretation of the data afterwards is consistent with theirs. My advisory board issued a letter in support of my research and stated their role as members of my board (see Appendix O). They examined the interview and survey questions and agreed that these questions would help to answer my research questions. I then posted research fliers in strategic places to create awareness about the research. My advisory board suggested potential participants for the research study who met the study protocol. I also met with the Bishop of the Amish community in Brown township and explained my research plans but they chose not to participate in the study.

Other willing participants were contacted through phone calls and in-person meetings to discuss research expectations and assure confidentiality of information. Consents were given and dates scheduled for the in-depth telephone interviews of 1 physician, 1 nurse and 1 resident. The interview participants also preferred to be interviewed from the comfort of their own homes rather than going to a conference room in the library. On the day of the scheduled calls, the researcher called participants, sought permission to record telephone interview discussion and proceeded with the interviews which lasted between 20 to 30 minutes. 10 survey packages were distributed to 10 willing participants from Brown township who met the inclusion criteria. Participants were told that all those who completed all their survey questions would receive 5-dollar worth of stamps. From a total of 10 surveys distributed, 7 were returned (70%). Brown township was color coded light pink using the return (privacy envelopes) to denote where the mailed in qualitative surveys came from during data analysis. Brown township has a few clinics and a hospital (Geisinger-Lewistown hospital) nearby. A letter in support of my research was issued by the Brown township board of supervisors (see Appendix F).

After the study, I again emailed my advisory board my interpretations of research results for review. They all agreed with the results of my findings and said participant voices were well represented. This further increased the credibility and conformability of research results. Table Q1 shows the number of participants from Brown township and the codes assigned to them.

Table Q1

Participant Codes (Brown Township)

Interview (n = 3)	Code	Survey (n = 7)	Code
Physician 1	MD1	1	MD2
Nurse 1	N1	1	N2
Resident 1	R1	5	R2, R3, R4, R5, R6

Bratton Township

I called Bratton township office, spoke to the secretary and set up a date to meet with her to discuss my research and ask for support from the supervisors. On the scheduled date, I met with the township secretary and discussed my research plans with her. She notified the board of supervisors who endorsed participating in the study and issued a letter in support of the research (see Appendix G). I posted research fliers in the township office. The secretary suggested potential research participants for the interview/surveys who met the inclusion criteria. Observing all protocols, a date for the interview was set up and 10 survey packages distributed to willing respondents. The secretary issued a letter in support of my research from the board of supervisors. On the day of the interview, I called the participant, asked for permission to record the interview discussion which lasted between 20 to 30 minutes. As the county did not have any clinics or hospitals nearby, no physicians or nurses were interviewed. Out of the 10 survey packages distributed to residents, only two were returned.

The interview participant also preferred to be interviewed from own home than going to a conference room in the library. Bratton township was color coded light blue using the return (privacy envelopes) to denote where the mailed in qualitative surveys came from during data analysis. All participants who completed their survey questions were mailed $5 worth of stamps. Table Q2 shows the number of participants from Bratton township and the codes assigned to them.

Table Q2

Participant Codes (Bratton Township)

Interview (*n* = 1)	Code	Survey (*n* = 2)	Code
Physician		-	
Nurse		-	
Resident 1	R7	2	R7, R8

Kistler Borough

The tax collector in Newton Hamilton helped to call the Kistler borough secretary on my behalf and asked her to meet with me to see if her borough might be interested in assisting me with my research. I then arranged and met with the Kistler borough secretary at her home and discussed my research plans. She became interested and agreed to support as best she could. She suggested potential participants who met the inclusion criteria for the interviews and survey. A date was scheduled for the interview after obtaining consent. The lone participant was called from the comfort of her own home and permission was asked to record the interview discussion which lasted between 20 to 30

minutes. No physicians or nurses were interviewed as the borough did not have its own hospitals or clinics. Out of the 10 surveys distributed, only 1 survey was returned. A letter was issued in support of the research and sent via mail (see Appendix H). The participant also preferred to be interviewed from her own home than going to a conference room in the library. Kistler borough was color coded yellow using the return (privacy envelopes) to denote where the mailed in qualitative surveys came from during data analysis. All participants who completed their survey questions were mailed $5 worth of stamps. Table Q3 shows the number of participants from Kistler borough and the codes assigned to them.

Table Q3

Participant Codes (Kistler Borough)

Interview (*n* = 1)	Code	Survey (*n* = 1)	Code
Physician		-	
Nurse		-	
Resident 1	R9	1	R9

Menno Township

I called Menno township and spoke to the secretary, informing him about my research. We set up a date to meet and discuss it further. On that day, I met with the secretary and his wife at their home. I laid out my research plans and they agreed to assist. He informed me that the Amish community may not be willing to participate in the research for they kept to themselves and do not disclose information to strangers. The

secretary and his wife then suggested potential participants for the interview and surveys. As the township does not have its own hospital or clinics, no physicians or nurses were interviewed. One participant agreed to be interviewed. On the day of the interview, after observing all protocols, semi-structured interview questions were asked and lasted 20 to 30 minutes. The participant was assured that results will be sent through community news outlet at the end of the study. Survey packages were distributed to willing research participants. Out of the 10 survey packages distributed, 2 were returned. A letter was also issued in support of the research by the board of supervisors (see Appendix I).

The participant also preferred to be interviewed from comfort of own home than going to a conference room in the library. Menno township was color coded purple using the return (privacy envelopes) to denote where the mailed in qualitative surveys came from during data analysis. All participants who completed their survey questions were mailed $5 worth of stamps. Table Q4 shows the number of participants from Menno township and the codes assigned to them.

Table Q4

Participant codes (Menno Township)

Interview (*n* = 1)	Code	Survey (*n* = 2)	Code
Physician		-	
Nurse		-	
Resident 1	R10	2	R11, R12

McVeytown Borough

I called the secretary and visited the borough to discuss the research plans and ask for assistance. Fliers were posted in the township office. Since schools were closed for the Summer, fliers could not be posted in the school premises. The secretary suggested that I attend the borough council meeting on June 13th to meet with the borough council members including the Mayor which I did on the day of the meeting. I presented my research and asked for assistance with potential research participants. It was received well, however, a verbal acknowledgement of support for my research was given. Potential participants were suggested, respondents gave their consent and surveys were distributed. By and large, none of the potential participants could be interviewed as none agreed to participate. Out of the 10 surveys distributed, only one (10%) was returned. McVeytown borough was color coded green using the return (privacy envelopes) to denote where the mailed in qualitative surveys came from during data analysis. All participants who completed their survey questions were mailed $5 worth of stamps. Table Q5 shows the number of participants from McVeytown borough and the codes assigned to them.

Table Q5

Participant Codes (McVeytown Borough)

Interview (*n* = 0)	Code	Survey (*n* = 1)	Code
Physician		-	
Nurse		-	
Resident		1	R13

Newton Hamilton Borough

I called the Newton Hamilton borough and spoke with the tax collector of the borough who suggested that I visit their home to discuss the research further, since her husband was the council borough's president. A date was set for the visit. On arrival, I met with the president of the borough council and his wife who was the tax collector of the borough. I laid out my research plans and they agreed to assist. They however, told me that recruitment of potential participants might be difficult, since it was a very small borough consisting mainly of elderly residents. Potential participants who met the inclusion criteria for the interviews and survey were suggested. Consent was obtained and a date scheduled for the interview. The participant was called and interviewed after observing all protocols which lasted between 20 to 30 minutes. Only 1 nurse was interviewed (an licensed practical nurse) as there were no other nurses/physicians in the borough participated. The residents in Newton Hamilton received primary or specialty services from other townships/communities. The president of the borough issued a letter in support of my research (see Appendix J). I also reached out to the borough's secretary via email who also issued a letter from the borough in support of the research (see Appendix K). She was helpful in suggesting other potential participants for the survey. More survey packages (8) were distributed to willing participants but of the 10 survey packages distributed in the borough, only 2 were returned. The borough's tax collector was gracious enough to connect me with the secretary of Kistler borough to request for her help in assisting me with my research study.

The interview participant also preferred to be interviewed from own home than going to a conference room in the library. Newton Hamilton borough was color coded pink using the return (privacy envelopes) to denote where the mailed in qualitative surveys came from during data analysis. All participants who completed their survey questions were mailed $5 worth of stamps. Table Q6 shows the number of participants from Newton Hamilton borough and the codes assigned to them.

Table Q6

Participant Codes (Newton Hamilton Borough)

Interview (*n* = 1)	Code	Survey (*n* = 2)	Code
Physician		-	
Nurse 1	N3	1	N3
Resident		1	R14

Oliver Township

I called and spoke to the township secretary and Road Master about my research. A date was set for me to visit the township. On the day of the visit, I met with the road master in person, discussed my plans and he suggested that we rescheduled the appointment since he was called in for a job outside the office. Another meeting was scheduled and on my arrival, I met with the township secretary and the road master and laid out my research plans. The board of supervisors agreed to assist me with my research and suggested potential participants for the study who met the inclusion criteria. As the township did not have its own nurses/physicians in the area, none were interviewed.

However, 1 resident agreed to be interviewed. After observing all research protocols, a date was set for the interview. The researcher made the call, asked for permission to record the interview discussion which lasted between 20 to 30 minutes. Also, 10 survey packages were distributed in the township and only 2 were returned. A letter of support by the board of supervisors was written and sent to the researcher via email (see Appendix L).

The interview participant also preferred to be interviewed from own home than going to a conference room in the library. Oliver township was color coded orange using the return (privacy envelopes) to denote where the mailed in qualitative surveys came from during data analysis. All participants who completed their survey questions were mailed $5 worth of stamps. Table Q7 shows the number of participants from Oliver township and the codes assigned to them.

Table Q7

Participant Codes (Oliver Township)

Interview (*n* = 1)	Code	Survey (*n* = 2)	Code
Physician		-	
Nurse		-	
Resident 1	R15	2	R16, R17

Union Township

I called and spoke to the township secretary and asked to meet to discuss my research. On the scheduled date, I met with her, posted fliers to create awareness for the

research. The secretary agreed to inform the board of supervisors of my request for assistance with my research. Several other phone calls were made as a reminder and asked to meet again with the secretary when I did not hear back from her. I met with the secretary a 2nd and a 3rd time before potential participants for the interviews and survey were suggested. 1 resident was interviewed at an agreeable time. I initiated the call to the respondent and asked for permission to record the interview discussion. Permission was granted and the interview lasted between 20 to 30 minutes. However, no physician or nurse were interviewed as none participated. Union township is one of the few townships in Mifflin County with available clinics. Out of the 10 surveys distributed to potential participants, none was returned. The secretary issued a letter from the board of supervisors in support of my research (see Appendix O). The interview participant also preferred to be interviewed from own home than going to a conference room in the library. Union township was color coded deep blue using the return (privacy envelopes) to denote where the mailed in qualitative surveys came from during data analysis. All participants who completed their survey questions were mailed $5 worth of stamps. Table Q8 shows the number of participants from Union township and the codes assigned to them.

Table Q8

Participant Codes (Union Township)

Interview (*n* = 1)	Code	Survey (*n* = 0)	Code
Physician		-	
Nurse		-	
Resident 1	R18		

Wayne Township

I called Wayne township and spoke to the secretary to schedule a date and time to meet to discuss my research study. On arrival at the township office on the set date, I met with the secretary and discussed my study plans. She agreed to inform the board of supervisors about my research request. Same was granted from the township and potential research participants who met the inclusion criteria were suggested. Fliers were posted in the township office. Schools were on Summer break and as such no fliers were posted in schools. I also spoke to the chairman of the board via telephone who was also in support of my research study and a letter in support of my research was given by the board of supervisors (see Appendix N). Following all research protocols, an interview date was scheduled with the willing participant. On the said day, I called and asked for permission for the discussion to be recorded. It lasted between 20 to 30 minutes. Out of the 10 survey packages distributed, only 2 were returned (20%). No physician was interviewed but 1 nurse from the township completed and returned the survey. Wayne

township does not have its own hospitals or clinics but travelled to nearby townships or communities for primary care.

The interview participant also preferred to be interviewed from own home than going to a conference room in the library. Wayne township was color coded lime using the return (privacy envelopes) to denote where the mailed in qualitative surveys came from during data analysis. All participants who completed their survey questions were mailed $5 worth of stamps. Table Q9 shows the number of participants from Wayne township and the codes assigned to them.

Table Q9

Participant Codes (Wayne Township)

Interview (*n* = 1)	Code	Survey (*n* = 2)	Code
Physician		-	
Nurse		1	N4
Resident 1	R19	1	R20

Appendix S: Identified Issues and Suggested Solutions to Primary Care Access

Challenges/Barriers to Primary Care Access	Possible Solutions to Primary Care Access
1. Inadequate Health Services	
Lack of community health centers	Build community health centers within communities Emigrate to a more populous area Use a top-down approach to solving problems
Lack of PCPs	Hire more physicians Give more attractive physician packages
Physician attrition	Provide attractive physician packages Hire more providers (PA's and NP's) to reduce physician workload and patient-provider ratio eases physician burnout
Lack of/Inadequate health insurance	Universal/Single payer healthcare systems Vote/lobby for legal action against medical systems that practice anticompetitive practices
Limited office hours	Provide afterhours Weekend services
Appointment scheduling issues	Direct call to physician's office instead of using call centers to schedule appointment Avoid overbooking appointments
2. High Cost/Poor Choice of Services	
Healthcare cost	Reduce Medicare cost so PCPs can start up in rural areas Increase dentists who accept new patients with Medicaid Access Card Encourage doctors to be independent
High deductibles/Copays	Provide healthcare at a cheaper rate Accept insurance at all facilities Encourage doctors to be independent
High medication cost	Reduce medication cost
Limited provider choices	Increase provider choices More dentists accepting Medicaid Access Card Encourage doctors to be independent
Health insurance bureaucracies (red tapes)	Government has no place in healthcare, let providers provide what is best for patients

(table continues)

Challenges/Barriers to Primary Care Access	Possible Solutions to Primary Care Access
3. Distance from Services	
Rural people are so spread out	Bring care closer to where people live Provide care satellite to hospitals and clinics
Transportation issues Traveling distance to care facilities	Set up a van system to ease transportation issues Make care site a little closer to the people
Use of ER as source of primary care	Educate people Make care site closer Provide cheaper healthcare Accept insurance at all facilities
4. Other Services Problems	
Language barrier	Avoid use of medical terminology Speak slowly and ask patient to repeat important information
Health literacy	Educate people on financial assistance Provide more services for the uninsured/low insured
Patient behavior	Educate on the need to be responsible for your own health Train physicians on drug addiction
Special needs of elderly	Educate Improve transportation Reduce healthcare cost
Special needs of Amish community	Educate Build a clinic for the Amish Provide transportation for them

Appendix T: IRB Approval Number