2017

# Investigating Funding Policies for New Clinics in Rural Northwest Region, Cameroon.

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Abstract

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MPA, Kutztown University, 2012

MS, International University, 2006

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Policy and Administration – Health Policy

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## Abstract

People who live in rural communities face enormous policy and complex accessibility challenges when they attempt to seek medical treatment. The purpose of this phenomenological study was to investigate an occurrence being experience by rural residents in the North West Region (NWR) of Cameroon where residents lacked nearby healthcare clinics where they can seek medical treatment and to determine if there were any funding policy requirements for the construction of new rural community clinics at the NW Regional Delegation of Public Health. Using Wright's conceptual framework on policy analysis and evaluation and Coleman's rational action theory, data were collected through in-depth interviews from a sample of 10 participants composed of healthcare policy designers and rural community residents. The data were analyzed using Colaizzi's 7-step method for analyzing phenomenological data. Findings indicated that the lack of primary health care clinics in rural communities imposed five main challenges which limit access to rural healthcare: the non-availability of healthcare facilities in rural settings, inaccessibility to rural communities, the unaffordability of healthcare in rural communities and lack of healthcare insurance, unacceptability due to lack of health education and social stigma, as well as lack of accommodation for new clinics. Furthermore, the Minister of Public Health uses existing healthcare funding policy requirements at the NW regional delegation to make final policy decisions. The results of this study may be used to create positive social change by establishing nonbiased health policy intervention strategies and will also help the Government of Cameroon to establish health promotion policy guidelines and policy adjustments that address the lack of clinics in rural NWR of Cameroon.

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# Dedication

This work is fully dedicated to the Almighty God, the King of Glory, and to who's sovereignty I will forever remain indebted and loyal to. God's constant wisdom and guidance throughout my dissertation process was insurmountable.

# Acknowledgments

I dedicate this work to all the participants who took time out of their busy schedules to respond to my questionnaire, who exercised patience to exhaustion, compromised their privacy, and underwent thorough interviews.

I am immensely grateful to my wife, Michele-Vera Yonga, who sacrificed a tremendous amount of her time guiding me and checking on my schedule and datelines, and to my daughter, Beatrice Ngwa, who never whimpered because I was engrossed in either writing or reading.

The following academic staff made this doctoral dissertation a very exciting learning experience for me. I am particularly grateful to my committee chair, Dr. Michael Knight, for his timely interventions; to my committee member, Dr. John Oswald, whose remarkable encouragement aroused my quest for knowledge, and to Drs. Tanya Settles and Daniel Jones, for their thorough review of my work.

I am eternally grateful to friends, colleagues, and relations who offered me assistance. This includes Wirdzenyuy Patrick, Angelica Che, John Che, Neba Ngwa, and Wilson Sama.

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# Chapter 1: Introduction to the Study

## Introduction

Public health policy practitioners are not only provided with the authority to equitably distribute available public health resources used in the amelioration of citizens' health, but they are also charged with the development of public health policy programs and to make responsible decisions (public policy actions) that will have a positive impact on citizens in the geographical area served by the public health practitioner. A sustainable health care funding policy promotion strategy needs to be institutionalized (WHO, 2015). This means that health care policy designers, planners, and mangers need to ensure that health promotion policy strategies are integrated into the fundamental building blocks of financial and resource planning (WHO, 2015). This will strengthen the effective implementation of a community capacity building strategy that will maximize the use of capital health care investment resources.

According to the United Nations' (2000) millennium development goals, health care is a right and not a privilege. Therefore, a shared vision and responsibility for health care policy designers seals a human and a social contract between policy designers and the people as a blueprint for community capacity building (CCB). Health care funding policy priority-settings should build upon the lessons learned from current and past initiatives, successes, as well as tragedies; some of which have resulted in an increase in morbidity and mortality rates (Clinical Simulation in Nursing, 2013). Therefore, continuous public health assessment, evaluation, and consultation should be a priority for health care policy designers for the development of future health care goals, needs, and plans. Well-developed health care policies could also provide a measure of development

in other sectors of any economy. Furthermore, a healthcare policy that will stimulate the construction of new clinics in rural communities should be prioritized as both a goal and an indicator used in assessing future health care needs, and subsequently the provision of future health care infrastructure.

Both the short-term and the long-term strategies for a primary health care funding policy is a necessity rather than just a desire, not only to ensure healthier communities, but also for a sustainable capacity building approach for human development. The World Health Organization (WHO; 2015) noted that articulated primary health care policy designing and planning are a set of guiding values for healthcare development, a set of principles for the organization of health services, and a range of approaches for addressing priority healthcare needs. Health care policies, if available, should be achievable and should equitably cover the social determinants of health across an entire health care system (National Institute of Health, NIH; 2012). If well focused and designed, WHO (2015) and the Center for Disease Control and Prevention (CDC; 2013) noted that health care policies can provide equal access to healthcare services and can also put an end to exclusion. Health services should be centered on people's needs and expectations, while health security should be assured for all communities in which people live (NIH; 2012). There should be a more holistic approach towards health, taking into consideration that sectors other than healthcare have a huge impact on peoples' health and that in a health systems approach, primary care would play an integral and central role in the wellbeing of individuals.

In Chapter 1, I will provide the rationale, background, and research questions that I used to identify the current gap in the literature and to establish the need for additional

study to effect social change. In this chapter, I will also outline the introduction, statement of the problem under investigation, purpose of the study, the nature of the study, the significance of the study, the lens or theoretical basis on which this study was designed, the sources of data, and a summary of the study.

## Background to the Study

Cameroon is a very diversified country located within central and west Africa and has been ruled by two presidents since independence: Ahmadou Ahidjo (1960–1982) and Paul Biya (1982–present; (DeLancey et al., 2010). It constitutes of French Cameroon and Southern Cameroon regions which gained independence in 1960 and 1961 respectively (DeLancey, Mbuh & Delancey, 2010). The country is endowed with diversified natural resources, yet, citizens are still faced with marked levels of poverty (DeLancey et al., 2010).

Several universities have gone operational and are graduating students in the medical and health sciences within the NWR region (DeLancey et al., 2010). An underlying factor for this study was that, despite the outpouring of new graduates from these universities, there is still a substantial lack of available clinics in these rural communities where they can practice. Thus, there exists a high rate of underemployment of graduates from these universities and other professional higher institutions of learning in the NWR of Cameroon (DeLancey, Mbuh, & Delancey, 2010; Nwaimah, 2008; Talla, 2014) The availability of these graduates is an advantage that is underused and that most communities do not have. This is not to suggest that there are no shortages of health care providers like nurses, nurse practitioners, laboratory technicians, and midwives across the

world today, but to emphasize that these shortages are on a steady decrease across the NWR of Cameroon today more so than was the case a decade ago.

Often times, clinics maintain onsite pharmacies and laboratories, allowing "one-stop shopping" for patients. The advantage of patients being treated by the same care team located within their communities at each visit could ensure that patients get to know and trust their providers who have built an easily accessible health profile of patients. This would allow provider and patient to proactively manage health issues together, rather than address them when those problems become acute. Community clinic models are advantageous for communities in that, they reduce the impact of emergency room care costs on the taxpayers, by providing easily accessible care at a lower cost within the community (Ward, Humphreys, McGrail, Wakerman, & Chisholm; 2015). The importance of community clinics cannot be overemphasized given that they offer comprehensive healthcare services by allowing patients to do laboratory tests, obtain test results, pick up their prescriptions, and book appointments in one place. Through this approach, these clinics enhance patient adherence to ongoing medical treatment and prescription recommendations that meet their needs, many of whom struggle with poor transportation conditions and other life challenges to reach the closest clinics from where they live (Staloch, 2015). Cameroon as a whole does not have a health care insurance scheme, which makes rural community clinics even more beneficial to residents since they offer care to people with no health insurance, without exclusion (Ndjepel et al., 2014; Zamo-Akono, Ndjokou, & Song-Ntamack, 2013).

Another underlying factor for the lack of rural community clinics in the NWR of Cameroon is that community clinics remove barriers to care and provide access

regardless of geographic location and financial means (People's Community Clinic, 2015). The institutionalization of funding policies for new clinics is a scientifically sound and logical foundation as noted by Wright's (1976) conceptual framework on policy analysis and evaluation and Coleman's (1960) rational action theory, the lenses through which I framed this study. A funding policy could stimulate specific rational ideas that can bring about change and improvement in a health care system, through health promotion initiatives, while expanding access to health (Ndjepel et al., 2014).

The NWR of Cameroon has and is still experiencing population growth just like other parts of the world, and so in this study I took into consideration the current projected future population growth in the rural communities as another underlying factor that may project the need for new clinics (The World Bank, 2015). Because of this population growth, policy guidelines and priorities for establishing the healthcare needs in each rural community as well as the utilization of locally available resources and projected ability to sustain a health care facility in each geographical area must be given a second thought. Therefore, the daily volume of retail care in relation to population size and economic empowerment can also establish the argument that these clinics can be financially sustainable. My exhortations in this study recognized that reliable healthcare systems can only play a vital role in strengthening rural community healthcare needs if a clearly defined policy exists for maternal care, HIV-AIDS infection, tuberculosis, malaria, typhoid, and sustained wound treatments emanating from accidents sustained during farming activities or due to bad roads (WHO, 2015).

Another underlying factor to the lack of a funding policy for new clinics in rural communities of the NWR of Cameroon is either a poor transportation road network or

inaccessibility, which hinders patients from reaching clinics or hospitals in far off locations (Ndjepel et al., 2014). Furthermore, most of the few existing primary care facilities are already overcrowded with the influx of patients from surrounding rural and even urban communities in some cases (Ndjepel et al., 2014). This then overwhelms the capacities of existing healthcare facilities, leading to inefficiency (Ndjepel et al., 2014; Zamo-Akono et al., 2013). Bad road networks in these rural communities is a huge barrier to patients, with some patients either dying during transportation to distant healthcare facilities or experiencing costly delays, vehicle breakdowns, car accidents, or being charged high transportation fares to reach a hospital (Healthy People 2020, 2015).

In addition, safety-net clinics, which provide vulnerable and low-income populations with comprehensive primary health care, have unique opportunities for successfully reducing morbidity and mortality rates (People's Community Clinic, 2015). The inclusion of a potential funding policy for new clinics in rural communities could provide tangible patient health care needs and improve primary health care outcomes. Through a funding policy, clinicians can develop evidence-based protocol guidelines to ensure that appropriate medications, immunizations, screenings, and counseling services are delivered to all patients as an enhanced approach to health care access (People's Community Clinic, 2015). It is every government's responsibility or obligation to prioritize policy development and policy adjustment so that they can continually strive to improve care delivery processes and health care outcomes, strengthen relationships with their citizens and communities, and increase the job satisfaction of the labor force (United Nations; UN, 2014).

Most Cameroonians live in abject poverty, partly due to corruption and embezzlement of public funds by government officials (DeLancey et al., 2010). Cameroon has either been categorized as the most corrupt country in the world or among the most corrupt countries in the world by Transparency International (2015) consecutively for the last 12 years. So many top government officials are currently imprisoned all over the country, especially at the "Kondengui" central prison in the capital city of Cameroon (Yaoundé) on the bases of corruption and embezzlement of public funds by the judiciary (DeLancey, et al., 2010; Talla, 2014). Surprisingly, corruption could be another underlying factor of why there is lack of a health care funding policy for the NWR and poor implementation of an adjusted policy. However, corruption becomes an underlying factor only if corrupt government officials consider a public health funding policy as a road block to embezzlement.

Some of the funding policy decisions that prioritize public health programs and projects are made at the Ministry of Public Health, through intergovernmental deliberations, known as the policy analysis divisions (Howard, 2005). Therefore, if a majority of these same government officials, whether elected, appointed, or regular applicants for government positions, are said to be corrupt or said to embezzle public funds, then it could constitute an underlying factor for why the NWR of Cameroon lacks new clinics. Underneath the network of embezzlement are political appointees and bureaucrats who are either dishonest or answerable to the authorities who appointed them, and often times, their decisions are influenced by *political godfathers* and oriented towards the next election (Raeburn, Akerman, Chuengsatiansup, Mejia, & Oladepo, 2015). Citizens in rural communities require that their healthcare problems be resolved or

that a policy decision that will have a positive impact on their health care needs be created by those in public offices.

While left to fend for themselves, residents of rural communities often rely on each family's available means under very challenging circumstances when they are either sick, infected, or when they attempt to seek medical treatment (Yotat, Agbor, Hubert, Florence, & Jacques, 2015). With the lack of health insurance, first aid training, or health education, people who live in rural areas in the NWR of Cameroon have no public health guidance manual on what to do, how to do it, or when to do it, when they fall sick (Donfouet, Pierre, Makaudze, Mahieu, & Malin, 2011). These residents have exploited a variety of options under emergency conditions to seek medical treatment when the need arises, depending on the human resources and economic strength of each family or person. Some have either argued and maintained their old or traditional approaches or have simply replaced their old methods in use depending on the strength of their growth as a person or people. Some residents of rural areas have even stuck to a variety of traditional first aid methods for treating infections with no scientific verification (Kronfol, 2012a). All of these attempts to get well are very active in cases where the family lacks the capacity (human and economic resources) or is unable to let go old traditions. Perhaps, some residents of rural communities are not well informed or knowledgeable of the various medical treatment options, tools, or methods available to them. The lack of information about treatment options makes residents of rural communities more comfortable and familiar with traditional methods regardless of the applicability of empirical or revolutionized medical treatment procedures or options (WHO, 2014).

The revolution of society as a whole has come not only to increase life expectancy but also to facilitate the normal course of life. However, new medical treatment methods as compared to the old customized traditional methods introduce a variety of empirical methods, circumstances, conditions, means, as well as the cost and the time it could takes to seek medical treatment from far off locations (Felch, 1987; Insaf, Jurkowski, & Alomar, 2010; Mondal & Shitan, 2014). There seem to be huge differences in terms of access to treatment between rural communities and cities in developed as well as developing countries. Therefore, access to treatment is a major issue in rural communities around the world (CDC, 2013; WHO, 2015). Resources are so concentrated in the cities or metropolitan areas that rural community capacity building is less empowered and residents face difficulties with transport and communication as well as a general shortage of medical practitioners in remote areas (Kronfol, 2012b; Strasser, 2003). Besides being very fortunate to have a lot of underemployed graduates from medical or public health institutions of learning in the NWR of Cameroon, rural people are caught in object poverty, ill health, and a downward spiral of low productivity (Smith, Mutangiri, Fox, & Crofts 2014; Strasser, 2003).

## Problem Statement

People who live in rural communities in the NWR of Cameroon lack sufficient clinics to seek medical treatment due to the lack of a well-established health care funding policy (Ndjepel, Ngangue, &Vii, 2014). Ndjepel et al. (2014) and Zamo-Akono et al. (2013) have shown that there is limitation in the public health system in Cameroon, as health promotion policy efforts are centered only on disease prevention and health education excluding funding for new clinics. President's Emergency Plan for Aids Relief;

PEPFAR (2012) noted that "the government of Cameroon currently allocates less than six percent of its national budget to health, which is far below the World Health Organization's (WHO) recommendation of 15% in order to meet the health sector Millennium Development Goals" (p. 2). Furthermore, "the Cameroon healthcare system has not been successful in delivering adequate healthcare services to all the population around the country because of limited accessibility to health care facilities and the inefficient use of financial resources" (Zamo-Akono et al., 2013, p. 2). Researchers and public health policy theorists have posited that any health care funding policy development which is not inclusive lacks the sufficiency to operate effectively and often times is floundered by challenges and difficulties (Raeburn, Akerman, Chuengsatiansup, Mejia, & Oladepo, 2015). The continuous evaluation of health care policy development should take into account local needs, what works where, and how new health care facilities can improve on community health (Stuckler, Basu, & McKee, 2011). The lack of a well-established health care funding policy for new clinics in the NWR of Cameroon may impact community health in a number of ways: a shortage of clinics; increase in cost, time, and distance to access treatment; overcrowding in the few existing hospitals and clinics which may lead to inefficiency; and an increase in mortality and morbidity rates.

To provide the government of Cameroon with the evidence that insufficient or the lack of funding policy for new clinics exists, I used a qualitative phenomenological research approach to investigate the severity of the health care challenges faced by rural communities as well as to determine if there is a funding policy requirement for new clinics in rural NWR of Cameroon. Since the research conducted so far only addressed

health promotion policy efforts (actions) that were centered on disease prevention and health education, there was no literature found that addressed a health care funding policy for new community clinics. Therefore, I intended this research study to serve as the first step towards a future public policy action that will fill this gap.

## Purpose of the Study

The purposes of this qualitative study were twofold. The first purpose was to investigate a phenomenological occurrence being experienced by rural communities in the NWR of Cameroon where residents lack nearby health clinics from which they can seek medical treatment. The second purpose was to determine if there is a funding policy requirement for the construction of new clinics in rural communities at the North West Regional Delegation of Public Health. Presenting evidence that this problem exists could contribute in strengthening the capacity of rural communities to take responsibility of their own health in a sustainable way and subsequently improve on their physical and social wellbeing. Furthermore, exposing the findings from this study could serve as a health promotion strategy that can be replicated in rural communities with similar characteristics.

## Significance of the Study

The significance of this study was that it might provide the government of Cameroon, health care policy designers and planners, and funding institutions with evidence of the impact that the lack of a funding policy for new clinics has on the health of rural communities in the NWR of Cameroon. Additionally, the results of this study might guide government officers on how and when to carryout policy adjustments, provide potential access to a policy, and can also pave the way for future research.

Through the findings of this study, individuals and communities may enhance their own ability to access treatment and to meet sustainable public health challenges. Furthermore, the results of this research could empower communities and individuals in addressing social health inequalities by providing evidence-based enhancement strategies to address the need for more clinics. Also, the impact of the results of this study on social change are that new clinics being built closer to the people might provide accessible medical care and relieve suffering as well as bring healing and hope to the less privileged and the vulnerable in rural communities. Standards of living may also be improved from saving time and money that would have otherwise been spent on the cost of obtaining medical treatment in distant locations under difficult circumstances. Additionally, the results of this study could reduce the unemployment rate of the medical/public health graduates from the so many medical and public health institutions of learning in the NWR of Cameroon, which I considered to be an underlying factor for this study. Therefore, the results of this study can contribute to the body of knowledge if policy makers can use them to help make the right and timely decisions to optimize the health of rural communities living in the NWR of Cameroon.

## Research Questions

I developed the following research questions (RQs) to guide this study:

RQ1: What are the health care challenges that people who live in rural communities in the NWR of Cameroon face due to the lack of new community clinics?

RQ2: What are the funding policy requirements for the construction of new clinics in rural communities in the NWR of Cameroon?

## Conceptual/Theoretical Framework

The conceptual and theoretical frameworks that I selected to guide this study combined Wright's (1976) conceptual framework on policy analysis and evaluation, which discusses the common logic of action, and Coleman's (1960) rational action theory, which discusses the most rational choices employed in decision making to achieve a specific goal. The rational action theory describes prudent and logical decisions that will provide the greatest benefit or satisfaction in the highest interest of the beneficiaries (Ritzer, 2007), while Wright's conceptual framework on policy analysis and evaluation can be used to analyze different types of actors at different levels of actions (Rütten et al. 2003). The approach determined by both frameworks are more appropriate for understanding and for explaining the actions of health policy actors and health-related actions, with the latter being modified by health policy actors as preventive strategies and interventions (Rutten, 2000). Both the rational action theory and the conceptual framework on policy analysis and evaluation align with the notion of rational choices designed by health policy actors as essential strategies in promoting public health oriented values, aims, goals, and commitment to social action (Ritzer, 2007).

## Nature of the Study

The nature of this study was qualitative. Qualitative research is consistent with empirical investigations of a phenomena (Creswell, 2013). Through interviews and the use of a phenomenological design, I explored the participants' perceptions, perspectives, and understandings regarding the lack of the inclusion of a funding policy for new clinics and its significance on rural communities in the NWR of Cameroon. The evidence collected will enable the government of Cameroon to make recommendations for health

care funding policy adjustments, reforms, or new policies, considered as a community health promotion strategy**.**

## Definitions of Terms

*Capacity building:* A conceptual approach to development that focuses on understanding the obstacles that inhibit people or communities from realizing their development goals while enhancing the abilities that will allow them to achieve measurable and sustainable results (Cheezum, et al 2013; National Institute of Statistics [NIS], 2011).

*Primary policy effects:* Effects intended or expected to occur as a result of a public policy action (Gowen, 2005).

*Public policy actions:* Collective term for public policy designing, plans, analysis, programs, policies, and decisions (Gowen, 2005).

*Rural community:* A lower or average population density of 250 per square mile or less, as of the 2011 Census (NIS, 2011).

## Assumptions

The main assumptions I held in this research investigation were:

1. Participants (employees) of the NWR Department of Public Health and one resident each from the seven divisions that make up the NWR provided the truthful or correct information.
2. The policy analyst at the department of public health for the NWR make public health funding policy decisions for the seven divisions of the NWR regarding the construction of new rural community clinics.

3. The seven participants came from and represented each of the seven divisions that make up the NWR.
4. I anticipated that those public health funding policy practitioners having experience in decision making processes used some form or kind of requirement or method when developing public health policy actions.

All the above assumptions were made to ascertain that the precision, exactness, and correctness of the investigation and were contingent upon the accuracy of the participants' contributions.

## Scope and Delimitations

This study was limited to three participants who were employees of the department of public health for the NWR responsible for making public health funding policy decisions regarding the construction of new rural community clinics and one participant from each of the seven divisions that make up the NWR of Cameroon. I only selected rural communities within the seven divisions for this study. The North West Regional Delegation of Public Health has policy designers, planners, analyst, and managers who recommend public policy funding decisions for approval by the provincial delegate of public health for the NWR. The sample size for this phenomenological-based investigation was 10 participants, which fell within the acceptable range of five to 25 participants necessary to reach a saturation point (Mason, 2010).

## Limitations of the Study

All the 10 initial participants, three of whom came from the department of public health for the NWR and one from each of the seven divisions of the NWR of Cameroon, that I selected for this research study agreed to participate in the study. Each of the

participant from the department of health was identified with the letters DH (for Department of Health) and a number (e.g., DH1 through DH3), while the other seven participants were identified as Rural Community Participant (RCP) with a number (e.g., RCP4 through RCP10) in other to prevent the identification of any respondent and to prevent any distinction among respondents. This study was exclusive of other provinces and urban communities.

## Limitations

This investigation was limited by the following:

1. This research study was limited to public health funding policy designers, planners, analysis and managers at the department of health for the NWR as well as to residents of rural communities within the NWR of Cameroon.
2. I did not anticipate that participants would have experience in all public health funding policy decisions making methods before participating in this study. The purpose of this study was to determine the challenges that residents of rural communities in the NWR face when they attempt to seek medical treatment and secondly, to determine if there is a funding policy requirement for the construction of new rural community clinics at the department of public health for the NWR. Therefore, the points here were twofold, the requirements (if any) for making funding policy decisions and the challenges face by rural communities, and not the participants' perceptions of public health funding policy decision making techniques, approaches, nor methods.
3. In this study, my focus was not on the apparent frequency with which public health funding policy decisions are made, rather my focus was on the

requirements or bases on which decisions regarding funding for the construction of new rural community clinics are made by policy designers, planners, analysts, or managers. Therefore, the rationale was that decisions made were based on the requirements and need and not on the frequency with which funding policy decisions are made (e.g., once, twice, or thrice a years).

## Measures Put in Place to Address Limitations

Despite the fact that I designed this investigation to be carried out within the above limitations, I used the same interview protocol and asked each participant the same set of questions during the interviews. Secondly, I use criterion sampling to identify potential informants, both at the delegation of public health for the NWR and from each of the rural participants. I then used a well-tested Colaizzi's (1973, 1978) seven-step method for analyzing phenomenological data and cataloging emerging themes. After creating a rapport with each participant, I interviewed them either in their offices or in a community hall under very a conducive atmosphere. All the interview questions were tested on my colleagues to ascertain their content and context. I will detail this process further in Chapter 3.

## Potential for Transferability

The transferability of this study depends on further studies and on the person doing the transfer in communities with similar characteristics. Whatever the case, applicability will also depend on rural communities with similar characteristics like the ones focused on in this study. The transferability of this study does not rely on a broad claim, but on the connection that each reader will make between elements of this study and their own personal experiences.

## Biases That May Have Influenced the Study

The first potential bias that could have influenced this investigation was the age of the participants as well as participant's gender. However, I did not minimize the adult participant ages nor their during the selection process. Age and gender were carefully excluded from this study in order to avoid raising new questions and to not compromise the reliability of the findings. Another potential bias was my selection of rural communities over urban communities. The NIS (2011) and ECAM III (2007) posited that 55% of Cameroon's poor people live in rural areas; therefore, 100% of the communities I selected for this research study were rural communities. The third bias that may have influenced this study was working with a smaller sample size. However, it is the nature of a qualitative phenomenological investigation to have a smaller sample size in other to avoid reaching a saturation point, which is between five and 25 participants (Creswell, 2013).

## Contributions of the Study

The results of this study contribute to the body of knowledge in public policy action by identifying the public health funding policy requirements currently being used by policy designers, planners, analysts, and managers as a basis for decision making regarding the construction of new clinics in rural communities. Secondly, the results of this study determined the health care challenges that rural communities in the NWP undergo to seek medical treatment. I revealed that public health policy analysts and managers use policy requirements in making public health policy decision but that there was no specific policy requirement that is currently being used in making decisions for the construction of new clinics in the NWR of Cameroon. The data collected for this

study can be used by the Cameroon government and the Ministry of Public Health, through the provincial delegation of public health for the NWR, to design and to develop a funding policy for the construction of new clinics in rural communities. The results of this study may also be replicated to other rural communities with similar characteristics like that of the NWR of Cameroon.

Additionally, the results of this study will support public policy administration-based academic coursework at the college as well as university levels. For example, my literature review revealed that multiple funding policy requirements are being made by policy designers, planners, analyst, and managers, and secondly that residents of rural communities face multiple challenges when seeking medical treatment (United Nations Children's Fund; UNICEF, 2014). In this study, I compared potential methods used by the policy designers, planners, analysts, and managers at the provincial delegation for the NWR in making public health policy decisions against those used for instructions in higher institutions of learning (e.g., colleges and universities), which offer academic programs in public policy and administration in the NWR. This comparison could pave the way forward for a determination to be made if there is a need to review or reassess the current syllabus being used.

## Summary

The purposes of this phenomenological qualitative study were to determine the challenges being faced by residents of rural communities when they attempt to seek medical treatment and secondly to determine the policy requirements (if any) currently being used by the NWR public health policy designers, planners, analysts, and managers in making public health funding policy decisions for the construction of new community

clinics in the rural NWR of Cameroon. My review of the existing literature regarding the bases of a public health policy actions indicated that public health policy practitioners use multiple or umbrella policy actions to make decisions rather than specific policy actions unique to every public health situation (Ongolo-Zogo, Lavis, Tomson, and Sewankambo, 2014). Therefore, public health policy practitioners often fail to consider the predominant effects of decisions made using multiple policies rather than the unique policy requirements designed for that situation (Ongolo-Zogo et al., 2014). For example, a policy requirement designed to fund the construction of new community clinics chosen from a scale of preference on a master plan. In Chapter 2, I will discuss the extant literature reviewed to recognize and assimilate the problem under investigation.

# Chapter 2: Literature Review

## Introduction

In the first part of this literature review, I will identify the literature available on the challenges faced by residents of rural communities when they attempt to seek medical treatment, and then, in the second part of the literature review I will focus on the public policy requirements used by the department of public health for the NWR of Cameroon in funding the construction of new rural healthcare clinics. The underlying factor to the lack of medical clinics in the NWR of Cameroon is that the NWR is endowed with many schools of public health graduating medical professionals who are grossly underemployed (DeLancey, Mbuh, & Delancey, 2010; Talla, 2014). This was not to suggest that there is no shortage of providers in this region but to emphasize that these shortages are on a slow but very steady decrease over the last 10 years due to several higher institutions of learning graduating students whose concentrations are either in public health or medicine. This continuous increase has led to an overall increase in the total numbers of healthcare professionals who can assume the role of healthcare providers in their communities (Talla, 2014).

Since the literature review is intended to achieve its relevance, I used the Goldilocks (2012) principle to incorporate old literature with literature which is less than 5 years old. By so doing, I will show the progress, originality, and relevance of the research problem. It was also important that I showed how the field of public health and health policy as well as the problem under investigation are historically situated. Additionally, my progressive literature review will indicate and recognize the seminal texts and how relevant each writer is. By incorporating both old and new literature, I will

survey the field, its trends, and relevant debates and will show significance and historical precedence as a legitimate way in which knowledge is constructed (Clark, 2016; West, 2005).

I used the following keyword search terms in conducting the literature review: *access to rural health, challenges face + to seek medical + treatment in isolated + locations, comparing public + health + challenges between + urban and + suburban communities, capacity + building + for health + promotion, healthcare + delivery + methods in suburban areas, community + health, access + to healthcare + facilities, access to + health care + opportunities in + rural areas,* and *healthcare + infrastructure in + rural as compared to metropolitan areas*.

World Bank (2013); Global Competitiveness Index, GCI (2013); and Edoun (2012) posited that unemployment, poverty, and income inequality are still very high in rural NWR, with more than 40% of the population living below the poverty line and corruption asserted as the main cause of unemployment. Similarly, the U.S. Department of State (as cited in Talla, 2014) indicated that 87% of Cameroonian citizens consider corruption as the main hindrance to transparency as well as accountability in the provision of public services. Cameroon has been ranked the most corrupt nation in the world by Transparency International, in 1998 and 1999, as well as has occupied the 144th position out of 177 countries several times (Beckman & Adeoti, 2006).

My review of the current literature showed a limitation in the availability of research data regarding the challenges faced by rural community residents when they attempt to seek medical treatment. The total population of Cameroon is estimated at over 20 million people, with the NWR hosting about 2 million citizens, about 9% of the total

population, and 46.8% of Cameroonians live in rural communities (Cameroon Data Portal, 2015). Each of these communities is very unique, even though they also share some common attributes (Cameroon Data Portal, 2015). Baker (2011) posited that most of these rural communities are "currently underserved in their basic healthcare needs; facing difficulties in accessing healthcare providers and healthcare facilities, suggesting that residents of these communities are seeking medical care elsewhere" (p. 1). To adhere to the initiative of Healthy People 2020 regarding the lack of health care facilities in rural communities, the U.S. Department of Health and Human Services recognized the eradication of the in-balance in healthcare disparities between rural and urban communities (CDC, 2013).

Using the available literature, I have pinpointed gaps in addressing access to healthcare disparities in rural communities. In this study, I sought to determine the challenges faced by rural populations in the NWR of Cameroon, which will subsequently be used as a template to eliminate healthcare disparities in rural communities as compared to urban communities exposed to the so many health care facilities within urban vicinities. Therefore, increased research and health care resources could provide more health care clinics to meet the needs of local communities. The CDC (2015); Ormond, Zuckerman, and Lhila (2000); and the Health Resources and Services Administration (1993) noted that populations in rural areas of the United States are experiencing a critical shortage of healthcare providers in rural or isolated communities as compared to urban communities. Eberhardt and Pamuk (2004) suggested that there is a need for policy designers, analysts, planners, and decision makers to increase research into healthcare challenges faced by individuals and the rural population as a whole, which

could enable federal, state, and local health departments to be accountable in providing vital and equitable public health services in rural communities.

The purpose of this section of the literature review was to identify those challenges that hinder residents in rural communities from accessing or seeking medical treatment in available healthcare facilities. Young (2004) acknowledged that it is important to identify a theory that will showcase the health care needs of rural communities. Two theories have been referenced by researchers in order to identify rational choices that need to be made by policy designers, planners, analysts, and decision makers in order to ameliorate challenges and provide more access to health care for rural populations. Baker (2011) cited Vlahov et al. (2007), Young (2004), and Ricketts et al. (2001) for emphasizing that geographic isolation and limited transportation opportunities directly and indirectly affect an individual's overall health status and that of a rural community as a whole. Additionally, Holzer, Goldsmith, and Ciarlo (1998) stated that besides the insufficiency in the number of clinics within rural communities, access to healthcare facilities is greatly influenced by availability and accessibility. Therefore, as a result, public health policy designers, planners, analysts, and decision makers, as well as citizens must understand both the significance and consequences of vital public health programs to combat these challenges.

## Significance of Incorporating Both Old and New Literature

Since the literature review is intended to achieving its relevance, I used the Goldilocks (2012) principle to incorporate old literature with literature which is less than 5 years old. By so doing, I will show the progress, originality, and relevance of the research problem. It is also very important that the researcher show how the field of

public health and health policy, as well as the problem under investigation are historically situated. Additionally, a progressive literature review will indicate and recognize the seminal texts and how relevant each writer is. By incorporating both old and new literature, I will survey the field and its trends, relevant debates in the field, and will show significance and historical precedence as a legitimate way in which knowledge is constructed (Clark, 2016; West, 2005).

The literature review will focus on the existing literature on policy analysis, since policy analysis is a systematic evaluation of the technical and political implications of alternatives proposed to solve public issues or concerns (Frey, 2011). Policy analysis refers to both the process of assessing policies or programs, and the outcome of a particular policy analysis. Through policy analysis, policy analysts, policy designers, policy planners, and policy managers make recommendations to management through policy advice, as a procedure or measure through which policy decisions are made at different levels of government. Whether the policy recommendations made by policy designers and analysts are accepted as evidently good or disregarded as unworthy in favor of other options, will depend on how well the policy designers and analysts present the problem with concrete evidence to justify the argument for a recommended course of action. Therefore, policy designers and policy analysts propose a definition to the problem and the goals, examine the arguments, and analyze the implementation of the policy (Frey, 2011).

## Literature Search Strategy

This literature review has an organizational pattern which combines both the summary and synthesis of a source so as to recap the vital information of each literature

review source. The Lan and Anders (2000) tier-two historical and perceptual technique for analyzing policy analysis, is used in analyzing the literature. It is from this background that literature older than the required 5 years, as well as recent literature was exploited. The purpose for using older data is to construct a historical foundation of policy analysis and then connect it to making contemporary literature. Combining both the old and new literature shows that there are policy designing, analysis and management decision making approaches being used to solve problems that do not yet have a specific and clearly defined policy assigned to them. However, policy designers and analysts use multiple policy requirements to make decisions at different levels of government to solve problems which do not yet have a clearly defined policy designed to be applied in specific situations where communities may need a health care facility (at least community clinics for a start). The major sections of this chapter include the literature search strategy, theoretical foundations, historical public policy decision making, and current public policy decision making.

A synthesis of the older literature gives a historical background of what public policy analysis or requirements have been used in the past and are still being used up till date. On the other hand, most recent articles provide an insight into older requirements, current requirements, and emerging requirements or trends. Through amalgamation, both the new and the older literature provides a comprehension of public policy analysis requirements and decision making. Articles older than 5 years were very necessary because they provided useful information regarding emerging trends (trends that are still very current) and also fill the deficiency or dearth of material written within the last 5 years. A search of the relevant literature for this research included peer and non-peer

reviewed journals, online data bases through the Walden University library, dissertations, as well as conference presentations. The following constituted the search terms used in conducting the literature review for this section: *health policies, public + policy + making requirements, public + health + policy process, public + health + policy + analysis, public + policy + planning, public + policy + decision making, public + administration, public + administration + decision making, healthcare + policy and + innovation, healthcare + reform.*

## Patterns in the Literature

A great share of the literature available on the challenges faced by rural communities when residents attempt to seek for medical treatment focuses on discrepancies, the limited availability and shortages of medical clinics, and the underrepresentation of health care providers in these communities in general. Williams and Cutchin (2002) observed that the shortage of rural healthcare professionals like registered nurses, nurse practitioners, physician assistants, physicians, and specialists, force the few professionals available to engage in providing some of the advance services which fall within the professional competency of a primary healthcare provider. Baker (2011) has recognized a number of factors

> contributing to these disparities, including but not limited to: lower income and education levels, ethnicity, long distances and travel requirements between providers and patients, provider recruitment and retention, the environment, and hazardous employment like mining, logging, agricultural work (farming), and general physical labor. (p. 16)

## Rural and Urban Classification Systems

Researchers are yet to agree on a common definition of what a rural community or population is, and where these rural communities are situated. Baker (2011) agreed with the U.S. Federal Office of Rural Health Policy and the U.S. Census Bureau (2012) that "a rural area is considered all territories, populations, or housing units located outside of Urbanized Areas and Urbanized Clusters" (p. 17). However, this definition has failed to recognize the elements that constitute the uniqueness of a rural community. In order to address this dilemma, investigators do their own determinations, either based on the parameters of the study they are conducting or specialty to which they belong (Baker, 2011). However, this analogy has made it more challenging to accurately describe or compare rural communities. In the seven divisions I selected for this study, a few hugely-populated cities located within rural geographical areas may further add complexity to the definition of a rural community. At this time, it may not be advisable for public policy designers, planners, analysts, or decision makers to validate any of the several definitions of a rural community (Baker, 2011; Ricketts et al., 2001). However, these definitions cannot be interchangeable but should be acknowledged as within the context of each study.

Both the federal, state, and local governments, through the U.S. Census Bureau categorize rural communities depending on the size, the density of the population in question, and the particular geographic area where the community is located (Ciarlo et al., 1996; Ricketts et al., 2001). Baker (2011) argued that the U.S. Census Bureau "considers any population, territory, or housing unit that is not specifically classified urban as rural." Even though Ciarlo et al. (1996) noted that this definition has been used

for close to 20 years by health researchers, they argue that this definition is very exclusive to the details of a rural community, making it very difficult to compare one rural community to another. The U.S. Census Bureau (as cited by Ricketts et al., 1998) later expanded on its previous definition of rural community, as that with a population of at most 2,500, while urbanized areas are large central locations with a population size of about 50,000 residents, with a density of more than 1,000 residents per square mile.

## The Goldsmith Modification

The Goldsmith modification was designed to address the challenges faced by small rural communities located within bigger counties (Goldsmith et al., 1993). This modification was initially designed in 1990 using the U.S. census data to support policy development, and then later on used for the universal access provision of the Telecommunications Act of 1996, as well as for rural communities that had deficiencies in accessing services (Ricketts et al., 1998, 2001). Even in 1980, the U.S. census data classified rural with respect to limited availability of services as well as limited access to central or metropolitan areas (Goldsmith et al., 1993). Identifying an area as rural enables researchers, governments, policy designers, planners, analysts, and decision makers to first of all recognize communities previously overlooked and to design inclusive programs like the Rural Health Grant that will increase access to services (Rural Assistance Center, 2007). The 1980 Health Demographic Profile System supported the Goldsmith modification ideology to identify rural populations and also identify isolated rural footpath, trails, and tracks, as well as determine the distance and time it takes to commute to more central locations and metropolitan areas (Ricketts et al., 2001). A good road network facilitates the time it takes to seek medical treatment, and to do that, an

accurate description of a rural community must be sought. However, Ricketts et al. (1998) warned against the use of old systems like the Goldsmith modification which does not provide an update to the system that was originally initiated on a very specific census data collection in 1980 and needed computation updates from time to time to fully address the challenges faced by residents of rural communities. This statement was collaborated by the Office of Rural Health Policy (2002), which disregarded the use of the Goldsmith modification.

## Rural-Urban Commuting

So far, the importance of roads has been mention by one author to another to identify the significance of roads and commuting time to seek medical treatment from far off locations or cities. Since there appear to be lack of clinics where rural resident can seek medical treatment, an alternative is to commute to urban locations to seek medical treatment, but a bad road network system, long commuting time, and high cost of transportation can be a big hindrance. The categorization of roads makes a clear distinction between commuting to a larger urban area or city and commuting between two smaller rural communities (Hart et al., 2005). Therefore, because of this numerous and long term challenges, public health departments can for the main time construct health facilities in rural communities, rather than to risk the life of citizens on long commuting times, higher cost of transportation, and especially on either very poor or impassable roads (World Bank, 2015; UNICEF, 2014; & WHO, 2012). To resolve some of these challenges, the public health department in Washington state in the U. S. created 35 local health departments and 29 health districts to address issues in their rural communities (Washington State Department of Health, 2016).

Similarly, the department of health in the NWR of Cameroon can also adopt the construction of new clinics as basic health care units or facilities to carter for the current health care needs of its rural populations or residents within the seven divisions that make up the NWR of Cameroon.


*Figure 1.* The Seven Divisions of the North West Region. Reprinted from North West Regional Fund for Health Promotion PIG, (2014). Retrieved August 2016, from http://nwrfundforhealth.org/. Copyright 2016 by North West Regional Delegation of Public Health. Reprinted with permission.


*Figure 2.* The North West Region on the Map of Cameroon. Reprinted from North West Regional Fund for Health Promotion PIG, (2014)., Retrieved August 2016, from http://nwrfundforhealth.org/. Copyright 2016 by North West Regional Delegation of Public Health. Reprinted with permission.

## Urbanization Hypothesis

Social epidemiologists recommend that social factors have direct and indirect impact on health (Young, 2004). Dahly and Adair (2007) note that urban-rural contrast

used by public health researchers insufficiently addresses the complexity of rural to urban dichotomy. Until recently, Wagenfeld et al. (1996) observed that different population sizes need the same public health services, thus population size, level of civilization, and location should not be a barrier to the provision of health care services. Similarly, rural communities need these services, even though several barriers remain a hindrance. AHRQ (2013) & Baker (2011) agree with Holzer, Goldsmith, & Ciarlo (1998) that "the ability to access healthcare is dependent on the number of service providers available and their proximity to the location" (p. 30). Therefore, more isolated populations or communities face tougher challenges to access health care services as compared to urban areas (Moscovice et al., 1982). Additionally, recent heath profile trends show that the elderly and the young residents in most rural communities have a higher demand for access to healthcare, which directly contributes to and measures the overall health of a country (AHRQ, 2013; Perrott & Holland, 2005; Ricketts et al., 2001; U.S. Department of Health and Human Services, 2002).

## Population Density

The rapid increase in population density within urban settlements remain a serious challenge for all public health organizations (Vlahov et al., 2007). On the other hand, the lack of rural community healthcare facilities and rural exodus can produce mental and physical health consequences, with increase in both homicide and suicide rates within community settings (Taylor et al., 2007). Furthermore, Vlahov et al. (2007) acknowledge that urban communities with a higher population density benefit more from public health interventions because it is easy to effectively provide primary health care services to so many people in close settings. Therefore, having easy access to health care services in

urban communities allows for access to specialized care, which subsequently leads to increase in quality of life. Similarly, rapidly growing population sizes in both rural and urban areas should trigger public health policy designers, planners, analysts, and decision makers to develop a decentralized strategy for the construction of new healthcare infrastructure that will carter for the needs of growing rural communities (Perrott & Holland, 2005). However, Stuckler, Basu, and McKee (2011) caution that public health policy designers, planners, analysts, and decision makers should consider the characteristics of each rural community's population growth rate and financial ability to sustain a healthcare facility.

## The Ecology of Services

Lack of adequate planning and proper assessment impacts a rural community's ability to access healthcare services and primary health care needs (Rabkin & Lytle, 1966). Nevertheless, adequate use of health care resources by public health practitioners and public health departments allows for available programs to be fully funded. In this study, population size is used to identify rural communities, recognize available healthcare opportunities, as well as the limitations that hinder access to healthcare services. According to the CDC (2013) and the WHO (2015) there is a possibility that population density can either benefit a community or impede access to health services. Therefore, public health departments should increase the equitable distribution of healthcare resources in order to reach a larger percentage of the beneficiaries

## Background and Context

Besides having general characteristics, several rural populations face unique health care challenges because of their geographical location and isolated habitat (AHRQ,

2013). Baker (2011) cited Ricketts (2002) and Ricketts et al. (2001) for noting that "the economic bases of these communities are: mining, forestry, fishing, and agriculture, pose additional health threats to rural residents" (p. 33). So far, the literature has shown that majority of people associated with rural habitats are considered farmers and into the agricultural sector. Therefore, the socioeconomic status and environmental challenges create more barriers to healthcare access or services in rural areas. Baker (2011) state that "In 1996, the Agency for Healthcare Research and Quality (AHRQ) estimated that nearly half of all residents in rural areas have at least one major chronic illness" (p. 34). In 2005 the US department of Agriculture established that the social cultural and economic composition of any community is very vital in determining the primary healthcare programs suitable for each community (Beard, Tomaska, Earnest, Summerhayes, & Morgan, 2009).

Baker (2011) acknowledges and agrees with Ricketts (2000) and the National Rural Health Association (NRHA) (2004) that, "state and local public health departments in rural communities typically lack the ability to adequately address the healthcare needs of vulnerable populations, and concluded that many of these communities lack a formal governmental public health department establishment" (p. 34). These challenges or limitations further hinder access to quality healthcare and quality of life. Reschovsky and Staiti (2005) acknowledge that access to healthcare in rural communities ignores simple computations (p. 1130).

There appears to be insufficient literature which identify the challenges encountered in accessing healthcare services in a rural community. Instead, majority of the research conducted so far focuses mostly on increasing access to health care services

(NRHA, 2004). The limitations associated with access to healthcare services omits the possibility to address auxiliary public health areas unsettled. These barriers require the need for researchers to set suitable standards of measurements for the collection of public health data in rural areas as compared to urban areas, in order to reduce serious obstacles for rural and urban healthcare researchers (NRHA, 2003). For example, through the development of these measures, investigators will identify indicators that will enable them to recognize and manage potential public health issues which can positively impact rural clinics in the NWR of Cameroon.

The World Bank (2015) has shown that poor road network and the large geographic area covered by most rural communities is another impediment to accessing health care services. Often times, the obstacle which limits individuals and rural populations from easy access to healthcare as a whole is insufficiency of good transportation systems and the ability of rural populations to access health care services (NWR Special Fund for Health Promotion PIG, 2014; Ricketts et al., (2001). Baker (2011) agrees with the New Freedom Commission on Mental Health (2004) that "access to transportation, or the perceived lack of transportation by community members may cause rural residents to travel increased distances to access specialized care" (p. 35). Challenges resulting from the lack of adequate transportation in rural communities, long distances, and enormous time needed to access medical treatment located in metropolitan or urban areas often results in more complications, deaths, and even population fragmentation (WHO, 2010; Phillips & McLeroy, 2001). Additionally, the result of these challenges faced by rural populations repeatedly are more likely to make them to delay or avoid seeking medical treatment (Schur & Franco, 2001). A poor or no road access can

hinder and render rural resident's incapable of seeking medical treatment, because of their own limitations or because the services are not available (UNICEF, 2011; Schur & Franco, 2001).

Holding up or postponing the provision of medical services from an individual or a community as a whole is likely to develop into more complex challenges in determining access to healthcare services. However, Hartley (2004) states that the rural habitat may also indirectly affect health by raising a feeling of isolation, further complicating the probability of seeking needed public health services. Any avoidance to seek medical treatment degrades the general health status of rural residents as compared to those in urbanized or metropolitan areas (Aday, Quill, & Reyes, 2001). In addition, the decision not to seek medical treatment because of the difficulties involved, complicates investigations by shrinking available health profile information made available by healthcare providers in rural areas. For instance, difficulties imposed by these challenges on rural communities in the NWR of Cameroon in seeking medical treatment, or having access to healthcare facilities is directly associated to a potential barrier in having access to healthcare providers. However, the challenge associated with accessing health care providers like: nurse aides, registered nurses, nurse practitioners, and physicians has been ameliorated in the NWR of Cameroon because of the so many unemployed graduates and practitioners in public health and medical colleges and universities in the region.

Baker (2011) collaborated with Rosenblatt and Hart (2001) for noting that "the lack of rural healthcare health centers like clinics and hospitals has become excessive (p. 36). According to the US Department of Health and Human Services (2015) residents of rural communities "struggle to have access to health services due to high unemployment

rates, lack of transportation, limited access to computers or the internet, inability to pay premiums, and inability to interpret health care information due to literacy issues" (p. 1). Healthy People.Gov (2015) acknowledges that because of the insufficiency in the number of healthcare facilities and providers, researchers are now beginning to focus not only on access to health care in rural communities, but also on the difficulties impeding rural residents from seeking medical treatment. However, no variables have been identified by researchers as having dominance in disparities on individual's overall health status or that of the community as a whole. According to Carter-Pokras & Baquet (2002) challenges faced when one attempts to seek health care services occur at different stages: (a) human habitat, (b) access and exploitation of healthcare services, (c) all-inclusive health status, and (d) a unique health care aftermath.

Both public health research and access to health care services are directly related to the lack of an equitable social justice system for the rural poor, based on the sex of the individuals, location, profession, educational status, isolation, age of individuals, the race of individuals and his or her economic status (RHIHub 2014) Aday et al., 2001). Past researchers like Ormand, Zuckerman, & Lhila (2000) agree with the National Governors Association (1998) that rural communities are typically associated with poverty, depending on the degree of isolation, and remoteness. In other words, poverty is either directly or indirectly related to health status

The World Health Organization (2006) explains that "health can be described as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (p. 37). PEPFAR (2012) & Eberhardt and Pamuk, (2004) have reported difficulties faced by rural communities in accessing health care services as being

more severe in rural communities as compared to urban communities, both in developing as well as developed countries. Furthermore, Baker (2011) confirmed Hartley (2004) and HHS (2002)'s finding that "the most common health limitations identified in literature are in access, care of mental health illnesses, drug and substance abuse, dental health, and public health services" (p. 38). Table 4 is a summary of priorities of rural populations (Gamm & Bell, 2001).

Table 1

Rural Health Priorities

| Rural Priorities (Identified by a response rate of 70% or more) | | % of Respondents ($N$ = 10) |
|---|---|---|
| Access to Healthcare (includes 1 or more of the following | | 73% |
| Access to emergency medical services | 32% | |
| Access to health workforce | 29% | |
| Access to health services (general) | 29% | |
| Access to health insurance | 26% | |
| Access to primary care | 24% | |
| Mental Health | | 49% |
| Oral Health | | 41% |
| Educational and Community-Based Programs | | 29% |
| Diabetes 26% | | 26% |
| Injury and Violence Prevention 26% | | 26% |
| Nutrition and Overweight 21% | | 21% |
| Public health Infrastructure 21% | | 21% |
| Tobacco 21% | | 21% |
| Maternal, Infant, and Child Health 18% | | 18% |
| Occupational Safety and Health 18% | | 18% |
| Cancer 15% | | 15% |
| Environmental Health 15% | | 15% |
| Heart Disease and Stroke 15% | | 15% |
| *Note.* Retrieved from: Gamm & Bell. (2001). Rural Healthy People 2010 | | |

In spite of the several community health problems, rural populations receive less health care consideration as compared to residents of urban metropolitan areas (Ormond et al., 2000). Baker (2011) agrees with Perlin and Baggett (2010) that a number of direct

and indirect characteristics have frequently been recognized in the literature by Seattle-King County Health, (2000) and Eberhardt and Pamuk (2004) as contributing factors to rural health disparities: “access to healthcare facilities, healthcare providers, the health behavior of individuals, education levels, socioeconomic status, genetic predisposition, race/ethnicity/cultural perceptions, environmental risks, and occupational hazards (p. 39).

## Rural/Urban Comparisons

Besides the association of rural communities with immense poverty rates and increased utilization of the very limited heath care services, 65% of the elderly tend to face more health care challenges in rural communities as compared to urban metropolitan areas (UNICEF, 2011; Ormond et al., 2000; Mercer, 2001; and U.S. DHHS, 2002). Additionally, individuals residing in rural communities repeatedly self-report the state of their health as poor or fair at a greater frequency than would their metropolitan peers (Beard, Tomaska, Earnest, Summerhayes, & Morgan, 2009; Robinson & Guidry, 2001). However, while all rural communities have similar characteristics, they are also very specific in different ways, which therefore makes the comparison between rural and urban communities even more complex (DHHS, 2002). Baker (2011) cited Eberhardt and Pamuk (2004) for establishing that “adults who reside in rural communities have been identified to have higher infant mortality rate of 44%, young adults, higher age-adjusted death rates, and higher rates of overall premature mortality” (p. 39). Furthermore, Eberhardt and Pamuk went even one step further to state that people in rural communities register excessive death rates due to suicide, chronic obstructive pulmonary diseases, and accidental injuries. The WHO (2010) and AHRQ (1996) supported Eberhardt and Pamuk’s point of view that the total death rates could even grow in rural communities

because of the auxiliary risks related to mining, forestry, and agriculture, which are the main sources of income for rural residents.

Baker (2011) agreed with AHRQ (1996) that majority of these rural populations "have very insufficient health care providers, less health resources, and greater difficulty in developing new health services to address these health issues" (p. 40). From the literature exploited so far, limitations in the transportation network in rural communities and very scarce training for emergency services could increase the already higher mortality rates. Kellogg (2000) and Ormond et al., (2000) posit that 60% of individuals residing in rural communities identify these limitations in their healthcare systems, but continue to avoid, postpone, or to take advantage of both the fewer medical facilities and scarce healthcare providers available in rural areas, when compared to urban areas. Low demographic parameters could also limit the flow of public health resources, as well as the way health care is delivered in rural communities (NWR Special Fund for Health Promotion PIG, 2014). The National Rural Health Association (2003) has established five factors that could affect the way healthcare is administered in rural facilities: (a) low volume of patients, (b) inadequate reimbursement for services received, (c) limited numbers of qualified support staff, (d) lack of information technologies, and (e) a limited professional staff that is often overworked. This becomes even more complicated because residents of rural communities are less probable to seek medical treatment from very scarce medical facilities like hospitals, clinics or health centers, talk less of following through with their physician's recommendations (Reschovsky & Staiti, 2005).

Both Zigmond (2006) and Link and Phelan (2002) identify a number of reasons why restricted health care resources have the potential to affect the inclusive health status

of individuals in rural communities. This includes: the availability and insufficiency of health care services and resources which can further complicate social networks issues, and a change in economic status. While most government programs are designed for urban populations, rural communities are ineligible for the same governmental programs (Rural Health Information Hub, 2016).

## Limited Access to Healthcare

Asch et al. (2006) observed that Americans have no access to the level of healthcare proportion suggested by healthcare professionals. The care delivered to people living in rural America, where less access to health care providers is experienced, similarly limits their chances of receiving proper health care services. Therefore, the distinction and variance in the availability of healthcare delivered to rural, as compared to urban communities is persistently troubling to social science and health care researchers (Raeburn, et al., 2015). According to the WHO (2015), Gamm et al. (2003), and Strasser (2003), having the opportunity to access health care services continues to be very disturbing to rural healthcare researchers throughout the world.

It is very exhausting and often takes an enormous amount of effort to effectively measure access to health care services because of the several variables that influence the ability to obtain health care (Reschovsky & Staiti, 2005). This assertion is collaborated throughout this literature review, that variables such as “socioeconomic status, age, race, gender, educational levels, employment status and occupation, geographical location, living environment, and rural cultures must be given consideration when planning the delivery of health care services in rural communities” (Baker, 2011, p. 42). Researchers need to examine the personal choices and decisions of beneficiaries to access healthcare

services before identifying the difficulties or challenges involved. Furthermore, Schur and Franco (2001) note that health researchers are even more confused with the primary decision of a rural resident not to seek healthcare services, given that the initial decision to acquire care cannot be determined nor measured. However, urban areas also have specific challenges when attempting to access care, but rural communities are more vulnerable to barriers when seeking access to healthcare, like "geographic isolation, rough terrain, weather conditions, and lack of public transportation are the most commonly cited difficulties or challenges.

Mercer (2001) as cited in Baker (2011) sates that "rural residents typically do not have access to a structured public transportation system, and are usually required to travel on dilapidated roads or rough highways considered to be less ideal, in order to reach healthcare services" (p. 43). Ricketts et al. (2001) collaborated with Baker and Mercer (2001) by stating that the deficiency in providing a reasonable public transportation system often creates severe barriers for rural populations attempting to reach healthcare providers and facilities in metropolitan areas. A more complex situation is created when few health care providers in rural communities establish their practices or services in the most uninhabited areas (Zamo-Akono et al., 2013; & HHS, 2002). Additionally, the lack of a transportation system in rural communities poses huge challenges to access care, since individuals will be forced to travel extensive distances to seek medical treatment (New Freedom Commission on Mental Health, 2004). The evidence presented regarding the lack of a reasonable transportation system has shown that rural residents could possibly avoid or delay seeking health care services (Schur & Franco, 2001). As a direct result, rural residents may recognize their general health ranking as minimum compared

to that of those residents in urban towns or cities (Happell, Scott, Platania-Phung, & Nankivell, 2012; & Aday et al., 2001).

Increasingly, it is becoming very challenging for individuals in rural communities to have access to health care facilities like health centers, clinics, or hospitals (Probst et al., 2004). Probst et al. (2004) as cited by United States Department of Agriculture, USDA (1995) states that the scanty number of people who live in rural communities makes it less cost-efficient to provide essential public health opportunities in several rural communities. Hauenstein et al. (2014) and Rosenblatt and Hart (2001) observed that "the lack of health care facilities has increasingly become very severe in rural settlements" (p. 38). Therefore, rural community researchers are beginning to shift their approach to embrace and to compare the number and type of provider availability between rural communities and urbanized areas, although a single limitation to obtaining a health care service does not give researchers the right to rush into conclusion that an individual's all-inclusive health status is very poor (Healthy People.gov, 2015; & Carter–Pokras & Baquet, 2002). Therefore, obstacles in accessing health care further emphasize the need for both rural and urban researchers to create standards for data collection in both rural and urbanized areas respectively (NRHA, 2003).

Every geographical settlement or rural community typically varies from one region to another, with each of these regions having very unique characteristics (Duma, Roşu, Manole, Petrariu, & Constantin, 2014). These differences registered comparatively between urban and rural areas are likely to impact the need and availability of health care services. Duma, Roşu, Manole, Petrariu, and Constantin (2014) and Schur and Franco (2001) argue that presently, the approach or methods being used by public health

researchers to measure access to health care have failed to accurately show the conditions unique to each rural community. Therefore, further research will be needed to clarify this point and to harmonize the characteristics across rural communities. Through the development of these indicators, public health designers and policy researchers will identify potential health problems that may not only affect rural communities, but urban communities as well.

## Rural Health Behaviors

Several health behaviors have been shown to directly and indirectly impact both the health status of individual residents in rural areas, as well as that of communities as a whole. Particularly, some traditional health behaviors have been linked with rural communities in both scientific literature and the mainstream media. Baker (2011) notes that some common, as well as complex "illnesses, conditions, or diseases resulting from agricultural exposures are commonly attributed to these populations" (p. 44). Iversen et al., (2006) and Baker concur that asthma and other severe lung issues, like chronic obstructive pulmonary disease (COPD), are often diagnosed at a higher rate among rural populations. Humphreys (1998) as cited by Baker further explains that some of these infections come from common chemicals used by farmers, like herbicide and pesticide. Also, allergies, cancer, and zoonotic diseases are frequently reported in the literature as occurring due to uses in agricultural practices (Humphreys, 1998). Also, the dangers associated with the use of heavy agricultural machinery, equipment, and chemicals remains a serious health concern for the rural residents and their healthcare providers, given that some of these chemicals are considered to cause not only cancer, but other illnesses through the pollution of groundwater (Stingley, & Schultz, 2014; and Ricketts,

2000). However, Larsson et al. (2006) pointed out that, so far, very little research has been done to identify the relationship between environmental health & the overall health status of a rural community. Furthermore, Stingley and Schultz (2014), as well as Eberhardt and Pamuk (2004) have also shown that there are some common health behaviors that can be modified like smoking, physical inactivity, alcohol consumption or obesity, which often result in high mortality rates and prevalence of chronic health issues in many rural communities, especially for those in lower socioeconomic groups.

Baker (2011) cited researchers like (Eberhardt & Pamuk, 2004; Humphreys, 1998) for reporting higher rates of unintentional death, suicides, alcohol or drug abuse, mental illness, and heart disease among rural populations. According to the U.S. Department of HHS (2014) either accidental or avoidable deaths for rural communities are commonly higher when compared to urban areas. Eberhardt and Pamuk (2004) agree with the U.S. Department of HHS finding that people who live in rural communities are likely to experience death rates of approximately 86% higher when compared to similarly age suburban individuals. According to the U.S. Department of Labor (2015) rural emergency rooms reported that over 12.5 % of all visits were due to work-related injuries, compared to only 4.2% in urban settlements. Additionally, premature mortality rates among rural residents have been shown to be higher across all age groups when compared to urban residents between the ages of 25 to 64 years old (Eberhardt & Pamuk, 2004). Rural healthcare practitioners associate these high rates to low resources in rural areas.

Both Hartley (2004) and a study carried out by the Institute of Medicine (2002) suggest that over 70% of avoidable mortalities are directly related to behaviors, the

environment, and the socioeconomic status and educational levels of each individual. Several characteristics and traits have been linked to individuals living in rural communities and have also been shown to have an effect on human health. Independence, resilience, and resourcefulness constitute some of the personal behavior attributes that can support an individual to thrive in a rural environment (Donfouet, Makaudze, Mahieu, & Malin, 2011). Additionally, some social values directly related to rural life styles, together with customary or traditional remedies practiced by people in rural communities have made preventive services a luxury to rural populations or better still, this practice has discouraged the use of preventative services or treatments (Strickland & Strickland, 1996). These types of attributes often lead to a delay in seeking medical treatment at the right time.

Some of the primary reasons identified for not accessing available preventive care is the perception held by rural populations that this form of care is too artificial and may not be very beneficial given that they are endowed with natural herbs which they believe can produce better health outcomes (Groft et al., 2005). However, a significant number of barriers are traditionally related to the delivery of preventive services: lack of access to seek medical care, educating or bringing awareness to rural populations, as well as the ability of rural residents to pay for services, which has potentially affected health department's ability to effectively provide services directly to communities (Ward, Humphreys, McGrail, Wakerman, & Chisholm, 2015; and Baker, 2011).

Clare (2010) notes that even though free care might not resolve all the problems that limit access to health care for minorities and vulnerable groups living in rural settlements, it will remove significant barriers. The implementation of care for rural

populations is a challenging task, since policy can only become a reality if the necessary drugs, equipment, and health care providers are customarily available in the most remote health districts (Ward et al., 2015). In a country facing such enormous health issues like Cameroon, the increased use of health services must be a priority and very objective. Furthermore, Clare posits that a strong healthcare system balances prevention and intervention strategies, provides healthcare education for citizens in rural areas, maintains an active workforce of healthcare providers and affords sufficient resources to confront illnesses and diseases. Therefore, a responsive healthcare system in a rural community could promote and maintain a sustainable workforce in a long run. According to Rural Health Information Hub; RHIHub (2016), the location of rural communities far from healthcare facilities within a poor road network system, leaves rural populations consistently cut off from urban or metropolitan areas where majority of medical infrastructures are located, making access to medical treatment even more challenging for those within rural settlements.

Staloch (2015) states that rural residents either avoid or delay seeking medical treatment from clinics or hospitals which are mostly located within urban or metropolitan towns because they fear the costs involved in attempting to seek medical treatment and the consequences of poor road networks. This then results in increased morbidity and mortality rates in rural areas compared to urban areas (Staloch, 2015). Healthy People 2020 as cited in RHIHub (2016) reports that access to healthcare is important for "overall physical, social, and mental health status, prevention of disease, detection and treatment of illnesses, quality of life, preventable death, and Life expectancy" (p. 1). According to Caldwell, Ford, Wallace, Wang, and Takahashi (2016), some of the factors which play a

significant role in healthcare access include: means of transportation to reach and use clinical services, confidence in the ability to communicate with healthcare providers, particularly if the patient is not fluent in English, confidence in the ability to use services without compromising privacy, and confidence in the quality of the care that they will receive. RHIHub proposed a guide on the barriers or challenges to healthcare access in rural NWR and Cameroon as a whole and ways communities and policy makers can address the health concerns of a community. Included in the guide are:

> Increase in workforce shortages, the provision and update to health insurance status, shorten distances and improve on transportation systems, improve on health literacy, and the elimination of stigma attached to certain conditions such as mental health or substance abuse issues. (p. 1)

RHIHub (2016) notes that obstetric services, mental health services, dental health services, and substance abuse services, are among the most common types of healthcare services that are difficult to access in rural areas. The lack of healthcare access affects a population's health and patient well-being in a community (AHRQ, 2015). Nonmetropolitan households report that the cost of healthcare limits their ability to receive medical care; that is why in more remote areas, patients have to travel long distances for specialized treatment (Donfouet, Makaudze, Mahieu, & Malin, 2011). According to RHIHub (2014) these patients may substitute local primary care providers for specialists or they may decide to postpone or forego health care that is to be provided by a specialist due to the burdens of cost and long travel times. According to a 2014 report by Access to Rural Health Care, barriers to healthcare result in unmet healthcare needs, including the lack of preventive and screening services, treatment of illnesses, and

thus prevent patients from access to specialist and advanced medical care. Therefore, the potential of any rural community is also dependent on the health status of its population. Access to medical care might not guarantee good health; however, access to healthcare is critical for a population's well-being and optimal health.

Caldwell, Ford, Wallace, Wang, and Takahashi (2016) state that the absence of rural healthcare facilities or the discontinuation of services will have a negative impact on access to care in any community. The Agency for Health Care Research and Quality; AHRQ (2015) reports that factors which impact the severity of poor health may include distance to the next closest provider, availability of alternative services, the availability of transportation services, and the socioeconomic and health status of individuals in the community. Having to travel to long distances to receive health care services places a burden of cost and time on the patients, compromising their chances of receiving adequate medical treatment (Baker, 2011). Furthermore, AHRQ and Pierce (2007) emphasize that for people with burdens of low incomes, no paid time off from their jobs, physical limitations, acute conditions, or poor weather conditions, their ability to access care is significantly affected. According to the RHIHub (2014) most rural residents sometimes rely on local pharmacies to provide medications and clinical care management and coordination. The lack of a local pharmacy may be disproportionately felt by the rural populations, especially the elderly, who often have a greater need for access to medications and medication management services (RHIHub, 2014). RHIHub as cited by AHRQ (2015) states that increase in the distance to the nearest pharmacy may result in decreased access to pharmacy services in particular and health services in general for this population. According to the CDC (2013), access to medications in rural areas which do

not yet have a community clinic nor provide clinical and in-person consultative services to remote populations can be a huge challenge.

## Rural Public Health Department Strengths

Public health departments throughout Cameroon and in the NWR in particular have traditionally offered public health services and programs that are designed to improve on the overall health status of entire communities. Hartley (2004) notes that traditional healthcare delivery systems have a lesser effect on the overall health status of rural residents than physical, social, environmental, or behavioral factors. From a historical perspective, rural health departments find it difficult to expand their services or programs on personalized care or the services offered to individuals into general preventative services (Quiram, Place, & Meit, 2004). However, recent program developments have allowed other rural public health departments to shift from offering health services to coordinating and educating rural populations about local providers and how they can better understand the healthcare delivery system (Moscovice et al., 1998). Local public health agencies have been identified with the strength that allows their departments to overcome barriers due to limited resources. However, Zigmond (2006) suggested that it is strictly the limited resources that act as a stimulant to encourage rural health professionals to engage in partnerships within their communities.

Increasingly, an often overlooked resource of rural public health departments are the employees. According to National Association of County and City Health Officials; NACCHO (2007), majority of rural public health departments are understaffed with public health nurses, environmental health specialists, clerical support staff, and a manager or director. Typically, recently graduated nurses like registered nurses, licensed

practical nurse, nurse aids, and those transitioning from one healthcare facility to another, make up the highest percentage of public health staffing (Joshi et al., 2014).

## Rural Health Department Weaknesses

### Infrastructure

Rural public health infrastructure is often considered the most important line of defense for new and emerging health issues impacting rural communities (CDC, 2015). Baker (2011) reports that public health infrastructure has been defined by the National Association of County and City Health Officials as including the systems, competencies, frameworks, relationships, and resources that enable public health agencies to perform their core functions and essential services. The absence of a strong infrastructure has been identified by Farrand (2004) as the primary limitation facing rural public health departments. Limitations in public health infrastructure in rural communities continues to contribute to the debate on the responsibilities of public health professionals that began with the Institute of Medicine's 1988 report (National Advisory Committee on Rural Health, 2000). Additionally, the instability in infrastructure can greatly impact the department's ability to develop and implement public health programs which are specifically designed for rural communities. As a result, Healthy People 2020 places healthcare as a priority for community development, thus the necessity to improve infrastructure in rural public health departments, and in turn facilitate the provision of essential healthcare services (Berkowitz, 2004).

As researchers are continuously being challenged to completely understand the concept of infrastructure, lack of infrastructure in rural public health departments is therefore considered to be the weakest component in the rural healthcare delivery system

(CDC, 2015; Beitsch et al., 2006; Farrand, 2004; National Rural Health Association, 2004; Ricketts, 2000). Additionally, with improved healthcare infrastructure, local health departments are empowered to fulfill the requirements outlined in their core functions, in delivering essential services (Baker, 2011; Beitsch et al., 2006; Suen & Magruder, 2004). To be more effective and productive, the construction, development, and the maintenance of a solid public health infrastructure requires continuous support from local, state, and federal partners (CDC, 2013). In this study, public health infrastructure is defined through the guidelines outlined by the National Advisory Committee on Rural Health (2000) and the CDC (2014), as well as suggestions from Researchers like (Baker & Koplan, 2002). According to Baker (2011), and through the review of literature, public health infrastructure is divided into the following categories: (a) Leadership, (b) Workforce Preparedness and Staffing, (c) Technology, (d) Funding, and (e) Health Programs.

**Staffing**

Moscovice and Rosenblatt (2000) as cited by Baker (2011) posits that "the most important component in offering good-quality health care in rural communities is to have an adequate cadre of well trained, as well as stable providers working in well-equipped and well managed ambulatory and inpatient facilities" (p. 174). Similarly, these standards in infrastructure and staffing can be replicated in rural areas with similar characteristics. However, rural public health departments typically have a small workforce and limited financial budget, but are often required to meet their community's public health needs, even though they are mandated to perform governmental services (CDC, 2013; Rosenblatt, Casey, & Richardson, 2002). According to the Cameroon Ministry of Public

Health (2015), the NWR of Cameroon has several higher institutions of learning that are regionally accredited to offer public health programs. Even though there are shortages of health care professionals all over the world today (CDC, 2015; WHO, 2014; and UNICEF, 2009), the NWR of Cameroon is endowed with a public health workforce ranging from nurses, nurse aides, laboratory and surgical technicians, and now, nurse practitioners, graduating from both public and private higher institutions of learning, often underemployed. However, there are very few physicians, with extreme shortages in the number of specialists and training resources for these experts (Aliason, 2015; CDC, 2013). These limitations of health care professionals in rural areas can potentially lead to a reduction in services designed to identify and eliminate preventive public health problems. Both Chen, Yin, and Xie (2014) and the CDC (2012) observed that it is common to find rural public health departments to have their employees leave to similar positions in metropolitan or urban areas for higher pay after receiving either initial training or an additional degree. This constant employee turnover increases the amounts of inefficiency within entire departments, organizations, and healthcare facilities. Workforce diversity in rural areas is another important factor that could potentially ensure effective communication between health care professionals and their clients. It is therefore necessary for public health departments to evaluate their programs and ensure successful implementation of these programs, as well as the suitability of staff in the various programs, in order to determine if they are meeting the health and cultural needs of communities (Suen & Magruder, 2004). Since many rural public health departments are a reflection of the limited cultural diversity of their communities, incorporating awareness remains a very challenging task. According to the World Bank (2012), despite

individual socio economic status, Cameroonians are faced with increased cost of care for the suboptimal care available, and the lack of Government subsidies further keeps poverty alive in the community.

**Technological Challenges**

According to Talla (2014), Cameroon is yet to meet a technological breakthrough that can be very effective or productive in both the public and private sectors. As compared to the Cameroonian health care system, Baker (2011), as well as Moscovice & Rosenblatt (2000) identify the United States as a country which healthcare system is renowned globally for effectiveness and technological sophistication. These technological advances are not experienced in rural public health departments (WHO, 2013; and CDC, 2012). In order to address these technological limitations, the CDC encourages all levels of government and the private sector to work together in sharing health information, decrease the costs of technology and increase the use of telemedicine, so that technology will become increasingly common in rural public health departments (CDC, 2013; Mercer, 2001). A technological advancement like telemedicine has increased the ability of healthcare providers to communicate and pass information over long distances through the internet, which has increasingly become available to rural communities underserved by healthcare professionals in developed, as well as developing countries (Clinical Simulation in Nursing, 2013; Williams & Cutchin, 2002). The availability of technology in many rural health departments and to healthcare providers within both developed and developing countries will be most welcomed because telemedicine has traditionally been lacking in these areas in the past (Bigna, Noubiap, Plottel, Kouanfack, & Koulla-Shiro, 2014; Lee et al., 2003; NACRH, 2000).

Rural public health agencies need to take advantage of existing technologies in order to adequately deliver health resources to their communities. According to the U.S. Department for Health and Human Services (2014), technology has increasingly become essential in the sharing of information within the local public health system. However, the use of technology to deliver care and education in rural areas has received little attention and appears not to be an immediate alternative for many rural health departments (Clinical Simulation in Nursing, 2013; Hartley, 2000). Financing technological advancement in rural health departments remains a challenge or barrier that is often insurmountable (CDC, 2013).

**Funding**

Urban and rural public health departments also differ in terms of the availability of funding resources for new facilities and infrastructure in general. Baker (2011) notes that the funding of urban public health institutions is 10 times more than that of their rural public health institutions. Both Martin (2015) and Schur (2001) state that public health agencies serving a population of less than 25,000 in developing countries function under very limited budgets as compared to their peers in the U.S.A which operate under an average annual budget of about $ 438,000. Furthermore, by way of comparison, larger metropolitan departments with more than 500,000 residents averaged over $ 66 million in annual operational costs. However, funding allocated to rural public health departments is expected to impact all aspects of the departments' programs or projects. According to Martin and Wellever et al., (2006), funding of public health programs has been on a continuous decrease yearly, due to lack of funds or dependent on local tax revenues. Often times, only a small portion of the public health department's overall budget may be

filled by the limited number of fee for service visitations, as well as few micro businesses operating in the rural areas.

According to the CDC (2014) and Wellever et al. (2006), funding for rural public health departments traditionally comes from a few sources like a grant, state funding for very specific programs, contracts to cater for epidemic outbreaks and other emergency health issues. Both Singer (2011) and NRHA (2004) argue that requirements and restrictions associated with government grants guidelines, limits funding available for many rural public health departments because of their inability to meet these requirements. Singer and NRHA state that, "many funding opportunities for public health organizations have conflicting guidelines that interfere with the department's ability to provide healthcare needs to rural communities" (p. 61). Often, rural public health departments are forced to transfer the cost of operation and services rendered directly to patients. This potentially decreases the amount of funds available to finance the cost of operation as most patients are low-income earners and can only pay for services in so many instalments (Joanna, 2012).

## Public Health Programs

Rural public health departments are expected to double their effort to play a full role within their jurisdictions, not only to measure and monitor the public health safety net of individuals in rural communities, but also to act as a safety net that provides essential health services to the most vulnerable populations within these communities (Healthy People 2020.gov, 2015). Traditionally, public health departments have offered personal healthcare services within communities to men, women, toddlers, and children, on health care education, sexual education and family planning (PEPFAR, 2012; and

Berkowitz, 2004). Some of these services rendered by local health departments are often considered to be programs offered, suggested, or supported by healthcare organizations on behalf of the less privileged in society (Nikiema, Haddad, & Potvin, 2012; and De-Graft Aikins, Boynton, & Atanga, 2010). Some of these interventions, impact, and account for some of the social factors that have been proven to positively impact overall health status (PEPFAR, 2012; and Emmons, 2000). However, specific costumes and primitive social values often associated with rural communities and their residents discourage the move by medical practitioners to offer the use of preventive services in rural areas (CDC, 2011; Strickland & Strickland, 1996).

Besides the effort being made to increase preventable injuries observed in rural communities, (Walker 2008; and Conway, 2001) report that most public health departments offer no programs designed to address prevention services. If made available, these services and programs should have been designed to specifically address rural inhabitants. Phillips and McLeroy (2004) have "identified educational programs that address healthy behavioral changes as the first step in improving the overall health status of rural residents" (p. 62). However, Baker (2011) cited Kirsten (2015); Anne (2010); and Eryn (2011) for stating that there is a huge challenge in developing and implementing rural health programs because of difficulties resulting from the "geographic locations, transportation issues, limitation of healthcare information, low availability of grants or public funding, and difficulty in recruiting staff" (p. 62). These limitations have made rural health researchers to consider it necessary to in-cooperate culturally appropriate outreach health projects designed specifically for rural communities (Hartley, 2004; Phillips & McLeroy, 2004; Sumaya, 2004). Previous studies have shown that public

health projects or programs that are specifically designed for an urban population cannot be successfully implemented in rural communities (Clare, 2010; Probst, Moore, Glover, & Samuels, 2004). Public health staffers should therefore recognize the importance of receiving training on accountability, and should acknowledge the various ways that personal choices and individual lifestyles affect overall health status (Amos 2013; Humphreys, 1998).

## Shortages in Healthcare Providers

One of the most noticeable challenge and difference between rural and urban health provision is the difference in the numbers of healthcare providers available for both the rural and urban populations (RHIHub, 2014). Rural residents consider the uneven distribution and overall shortage in the number of healthcare professionals and health resources available in their communities as one of their greatest challenge (Steinhardt, 2010; National Rural Health Association [NRHA], 2005; and Kellogg Foundation, 2001). Particularly, physician shortages in rural communities has consistently remained higher when compared to physician shortages in urban settlements (Kwesi, 2013; Asako, 2011; and NRHA, 2005). For example, Baker (2011) and Mitchell and Lassiter (2006) state that "from 1990 to 2001, more than 31.4 million Americans were determined to be living in an area that was underserved by healthcare professionals" (p. 63). Even though a review of the available literature did not provide most recent comparisons, the NWR of Cameroon is endowed with several number of higher institutions of learning within the last 10 years that are graduating healthcare professionals who are underused (Talla, 2014; and Martin, 2015). This is not to suggest that there are no shortages in the number of health care professionals in the NWR of

Cameroon, but to acknowledge that the proportionality of patient to physician ratio is consistently on a decrease (National Institute of Health [NIH], 2012; and PEPFAR, 2012).

Studies have shown the gap registered between the need for, and the availability of healthcare providers to be wide, and seen to have a negative impact on the overall health status within a certain population (Baker 2011; Shi et al., 2005). Additionally, Ricketts (2000) as cited by Baker (2011) explains that rural areas in the United States contain an estimated 20% of the entire population, but have less than 10% of the total Physicians workforce. These limitations in the number of providers in rural communities makes it challenging for health care professionals or providers in general to accept new patients, or to refer some patients to specialists, especially those in need of both acute and advanced medical care (Reschovsky & Staiti, 2005). Furthermore, this complex situation has made it difficult for residents of rural communities to seek health care services within their communities, but alternative care in distant locations (Yixuan, 2012). Therefore, this rural community-wide low rate of health coverage and high poverty rates have resulted in a loss of providers due to the community's inability to economically support the provider (PEPFAR, 2012; Probst, Moore, Glover & Samuels, 2004).

An estimated higher demand for physicians in urban or metropolitan settlements are forecasted to cause further shortages in rural communities referred to as the rural flight or rural exodus of professionals to metropolitan areas (NRHA, 2004). These demand is expected to push away health care providers who might have been considering to promote rural health care to instead consider increased possibilities and improvements in bigger healthcare establishments located in urban areas. Physicians who practice in

rural areas often tend to practice as generalists so that they can not only meet the demand and needs of these communities but also for the sake of financial stability (WHO, 2013). A study carried out by Reschovsky and Staiti (2005) notes that there are 5.3 primary care physicians and 5.4 specialists per 10,000 residents in rural areas, as compared to 7.8 primary care physicians and 13.4 specialists for the same sample population size within metropolitan areas. A direct result of this complexity in the lower numbers of specialists in rural areas, increases the vulnerability of rural populations to a series of chronic illnesses (Rygh & Hjortdahl, 2007). These limitations could impose a burden on local populations to travel long distances in order to seek the services of a specialist or in search of advanced medical treatment.

The communities affected by these shortages in primary care physicians, community clinics, as well as both the recruitment and retention of qualified healthcare practitioners continue to remain a major call for concern. According to Probst et al. (2004), 65% of all rural communities are presently experiencing a shortage in healthcare providers within their communities. Poverty, insufficiency or lack of health care policies, poor salaries, lack of qualified practitioners, and the isolated location of rural communities have been proposed as the main reasons that account for these shortages (CDC. 2013; and Rosenblatt et al., 2002). Furthermore, many rural communities are expected to lose more specialists, physicians, and other healthcare professionals established in rural areas to urban or metropolitan areas with the evolution of both technology and economic growth (WHO, 2013; and McKinley, 2005). An increase in these shortages, could likely lead to the closure of more rural health care establishments and facilities. Both the closures of healthcare establishments and shortages in the number

of physicians seem to have a greater effect on the overall health status of a rural communities as compared to urban settlements (Williams & Cutchin, 2002). However, Stingley and Schultz (2014) caution that, consequences that could be faced by rural residents as a direct result of the shortages in the number of primary care physicians and other health care professionals could be postponement, suspension or ending of treatment for serious and intensive ailments.

The employment of health care professionals to work in rural communities should be the primary goal of the public health education system in order to secure proper representation in rural settlements. NRHA (2005), proposed that, providers or new graduates from schools of public health or medical schools who might potentially continue to practice in a rural area have previously been an inhabitant of a rural community. The retention of these professionals could also depend on the recruitment method used.

The World Bank (2015), Curran and Rourke (2004), and Pathman et al. (2004) state that, rural health investigators have traditionally recognized factors that seem to be appealing to health care professionals who consider rural health as a field of practice to be that, the person must have developed serious passion in rural medicine before enrolling in either medical school or school of public health. Baker (2011) adds that, after haven lived in these communities before, these individuals often aspire to return to these rural communities. Additionally, after benefiting from a rural health scholarship (National Health Service Corps), or from a rural health focused program (Physician Shortage Area Program), participants often express a strong desire to return and practice in a rural community (WHO, 2015). Presently, government and parliamentarians or

lawmakers are also offering and should continue to offer medical students increased opportunities for educational loan repayment plans, as well as tax incentives to operate practices in rural communities (McKinley, 2005). Additionally, the exposure of medical school students to the benefits of, and to experience rural health practice, could greatly influence their decision to practice in similar communities. Traditionally and surprisingly RHIHub (2014), NRHA (2005), Rabinowitz et al. (2001), and Rosenblatt et al. (1992) have shown that more male than female health care professionals often become engaged in rural healthcare practice. This suggests that both the background of the student and his or her future goals during admission to medical school has a strong impact on the overall recruitment and retention of health care workers in rural communities. Also, medical students should be exposed to the necessity of rural healthcare practice during their studies.

Both Baker (2011) and Mercer (2001) recommend three strategies that will facilitate an increase in the recruitment and retention of rural healthcare providers; increasing the use of loan repayment programs, the recruitment of additional practitioners with increase in their prescriptive authority, as well as the provision of financial and technical subventions as motivation to healthcare providers so that they can establish practices in underserved communities. International public health institutions recommend not only the opening of medical schools with focus on rural healthcare, but also to introduce rural health concerns into the school curriculum (Hutten-Czapski & Thurber, 2002). A combination of the above mentioned steps is likely to increase the chances for success. NRHA (2005), Mercer (2000) and AHRQ (1996) posit that in order to retain providers that are already established in rural areas, the Robert Wood Johnson

Foundation (RWJF) has recommended programs to help in the employment and the retention of providers that will assist in the development of practices in these underserved communities. Included in this list are international medical graduates, health care providers like registered nurses, nurse practitioners, specialists and physician assistants, that have received special training in rural healthcare as a means to solve the scarcity of providers in these areas (CDC 2013; Hutten-Czapski & Thurber, 2002). For example, since the outsourcing of health care professionals in the US is becoming a major concern, it becomes very imperative that the estimated 2.370 physician vacancies in rural communities be filled (McKinley, 2005; Ricketts, 2000). However, Healthy People 2020 and Williams and Cutchin (2002) caution that it can become very difficult to precisely determine the number of physicians needed, not only in rural areas but within an entire nation.

Rural health care organizations and providers have also identified professional as well as personal isolation as a contributing factor associated with physician retention. For example, Williams and Cutchin (2002) note that, rural healthcare providers consider the rural environment as one which creates additional problems by limiting availability and contact with other healthcare organizations, healthcare professionals, and physician peers. Furthermore, rural healthcare providers often express their frustration with the over regulation of the health care industry across the board by governmental agencies without any distinction nor consideration to limited resources in rural areas, compared to more resources in metropolitan areas (World Bank, 2015). In order to successfully remain in rural communities, it may become necessary for these physicians to form additional relationships with local, regional, and State agencies (Rosenblatt et al., 2002).

To minimize these limitations, the American Telemedicine Association (2009) defines Telemedicine and conference calls as ―the use of medical information exchanged from one site to another via electronic communications to improve patients' health status (para. 1). Besides the vital role played by telemedicine in rural healthcare practice, its importance has continued to show great promise in rural practices, as well as its ability to eliminate the disparities between rural and urban practice, allow both professional and personal communication between health care professionals in rural healthcare settings and those in urban areas (AHRQ, 1996; Ricketts, 2000; and Mercer, 2001). Many of these technologies used in public health often ensures that both the provider and patient are beneficiaries, which in some cases is funded by the government at little or no cost to the local health jurisdiction or department.

Increasingly, limitation to healthcare access in rural communities is not unique to the NWR or Cameroon as a whole. Therefore, the disparities or discrepancies identified in the literature review are likely to be applicable to other geographic areas with similar characteristics or which have reported a shortage of health care professionals or health care providers in the past. According to Pierce (2007), creative initiatives should be developed to generate interest in the rural healthcare delivery system. Mercer (2001) as cited by Baker (2011) provided an example of two healthcare facilities in West Virginia that worked together with the state health department and social service agencies to establish a mobile clinic that was able to reach individuals in the most remote communities. A contemporary approach can be used to incorporate the already established faith-based organizations, volunteer organizations, as well as community organizations.

## Summary

Rural NWR of Cameroon contributes it quarter to the historical development of the country. However, these same rural communities are not experiencing the progress in healthcare delivery that metropolitan and urban settlements are experiencing. Majority of the disparities encountered by residents or rural communities seem to be problems that can be locally resolved. The NRHA (2005, 2014) acknowledge that several local healthcare projects have either been reduced or eliminated due to the insufficient funding resources coming from the ministry of public health. Even with the limited options and resources available for healthcare provision, local public health departments are still being expected to provide all or most essential healthcare services in rural communities. Traditionally, local public health departments maximize their effort and resources on individuals after failing several times to implement a community wide approach (CDC, 2013; Ryan-Nicholls, 2004). As the backbone of rural public health resource, several local and rural public health agencies will need to introduce drastic changes in both hierarchy structure and organization structure, so that they can utilize new technologies to effectively manage the limited resources at their disposal (Berkowitz, 2004; Farrand, 2004).

Some of the changes anticipated should include continuously educating and training the leadership of rural health departments to master public health policies and procedures, improve managerial skills, and develop ways to appropriately utilize the ever limited resources within their jurisdictions (Berkowitz, 2004; Quiram, Place & Meit, 2004). Addressing these limitations within rural health care should be a priority for rural health researchers. Current evidence regarding the health care needs of these

communities should be evaluated rather than using data that was derived from a historical study, which might not accurately reflect the ever changing needs of the rural population. Surprisingly, UNICEF (2014) notes that the barriers experienced by rural residents in accessing healthcare (infrastructure, geography, environmental, and isolation) are often not magnified to make a good case for rural populations, but very realistic. The challenges faced by rural residents are becoming more complex due to the burden of travelling to long distance locations to seek the most basic medical treatment (Perlin & Baggett, 2010).

From the literature review, it is reasonably demonstrated that the provision of public health services involves an entire system, not just specific services (Quiram et al., 2004). Even though several rural public health organizations lack the infrastructure to maintain outreach and healthcare services, they consider the rural health care systems as a future model for national health services. Therefore, because of the shortages in the number of primary healthcare providers identified in rural communities, many individuals place a priority on services dedicated to health risks which typically occur in rural areas and retooling projects that are oriented towards individual services.

So far, the first part of this literature review exploited the challenges that residents of rural communities face when they attempt to seek medical treatment. Similarly, the second part of this literature review will also exploit literature on the requirements for a funding policy decision regarding the construction of new clinics in rural communities.

## Requirements for a Public Health Policy Decision

The purposes of this qualitative phenomenological study were twofold. First, to determine the challenges that rural communities face when they attempt to seek medical

treatment and secondly to evaluate the current public policy funding requirements for new clinics, if any, at the department of health for the NWR of Cameroon. Funding policy requirements fall under policy designing and policy analysis and is used in bringing policy change, policy adjustment, and policy development. Text books and peer review journals are inclusively used in compiling the literature for this study. Therefore, in this section of chapter 2, the researcher will review, analyze, and synthesize the literature exploited by other researchers on the requirements for a funding policy decision, in addition to the already exploited literature on the challenges faced by people who live in rural communities when they attempt to seek medical treatment.

## Policy Analysis

From a definition standpoint of policy designing and analysis, public policy analysts differ on semantics and definition. Patton and Sawicki (1993) posit that policy analysis is "the process through which we identify and evaluate alternative policies or programs that are intended to lessen or resolve social, economic, or physical problems" (p. 21). On the other hand, Weimer and Vining (1992) define policy analysis as "client-oriented advice relevant to public decisions and informed by social values" (p. 1). Shultz (2003) notes that policy analysis "is about common sense, breaking down public issues into a sequence of questions that allows us to think clearly about them" (p. 83). Segal and Brzuzy (1998) define policy analysis as "the investigation and inquiry into the causes and consequences of public policies" (p. 60). Additionally, Young and Quinn (2002) claim that policy analysis "must be driven and targeted on the search for a practical, implementable, and comprehensive outcome" with "the ability to convince your audience of the suitability of your policy recommendations" (p. 10). Finally, Ukeles (1977) states

that policy analysis is “the systematic investigation of alternative policy options and the assembly and integration of the evidence for and against each option” (p. 223). It is very visibly noticed that all the definitions of policy analysis include the word “examine” or its synonym. Therefore, the word examine forms an implication for the definition of policy analysis. If assembled together, this multiple definitions of policy analysis throw more light and emphasis on the implication of policy analysis on social change and the wellbeing of citizens, which is in the first place what drives the examination of policy.

Frey (2011) describes the policy cycle by Young and Quinn (2002) found on Figure 3 as a guide to policy analysis and policy development. The policy cycle only appraises the context in which policy analysts engage in its development. This is so because, the process of policy analysis and its model require a flexible and well-structured approach, so that it can be institutionalized to guide the six steps in the policy cycle. These six steps are considered to be very interactive and revolving, while involving all the stakeholders concerned in seeking a solution to the policy problem such as the government and the community.

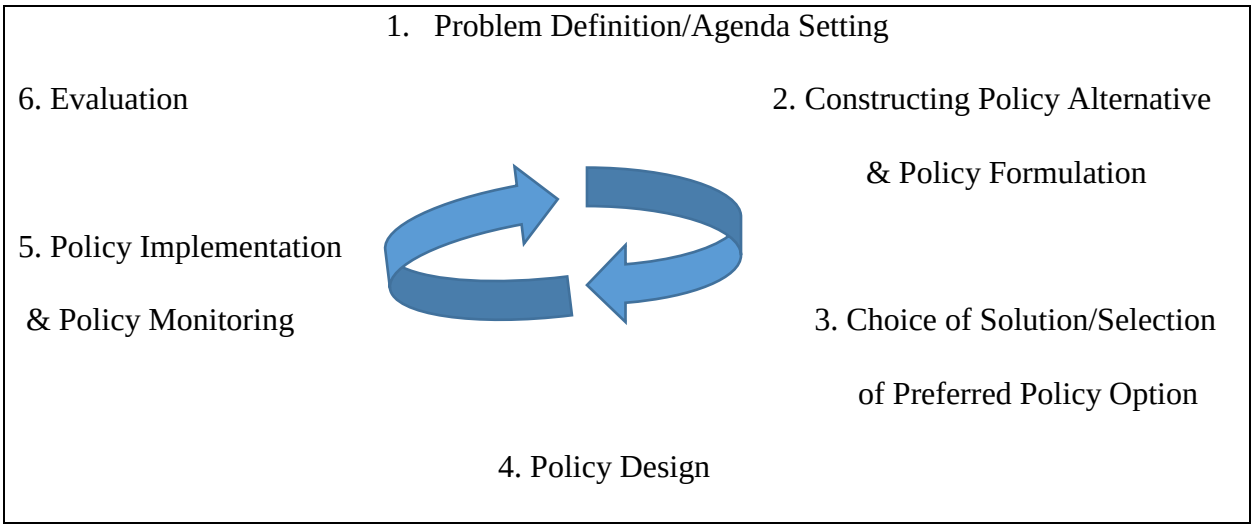


Figure 3: Policy cycle diagram. This figure diagrams the policy cycle from step one through step six. (Young and Quinn, 2002, p. 12)

Policy Cycle Steps:

1. Identify the problem and make it a high priority issue on the political agenda. This includes making a complete and convincing argument about the causes, effects, and extent of the problem.

2. Construct the policy alternatives/policy formulation. During this step, the alternatives are developed. The alternatives should be feasible and realistic.

3. Select a solution of the preferred policy option. Evaluation criteria is used to identify the preferred alternative. Criteria include: effectiveness, efficiency, equity, feasibility or implement-ability and flexibility or improvability.

4. Policy design. Government agencies that are in charge of implementation must decide on a policy instrument, organization and a delivery method of the outlined policy.

5. Policy implementation and monitoring, which is done by the government (local, state or federal). Implementation must be continually monitored for quality

outcomes and alignment to the adopted policy.

6. Step six is evaluation. The evaluation will determine the policy effectiveness by measuring the objectives and the actual cost (financial and resource).

After step six, the policy cycle may continue to improve the current policy or it may move on to a new social need.

Figure 3 diagrams the policy cycle from step one through step six, outlining the problem and making it a high priority issue on the political agenda. This includes making a complete and convincing argument including the causes, effects and extent of the problem. The policy alternatives/policy formulation. During this step, the alternatives are developed. The alternatives should be feasible and realistic. Evaluation criteria are used to identify the preferred alternatives. Some of the criteria include: effectiveness, efficiency, equity, feasibility/implement-ability and flexibility/improvability. Government agencies that are in charge of implementation can decide on a policy instrument, the monitoring and the delivery method, which is done by the local, state or federal government. Implementation must be continually monitored for outcomes and alignment to the adopted policy.

According to Young and Quinn (2002), the policy issue must then be considered a high priority issue on the political agenda. Acoording to Ongolo-Zogo et al., (2014), implementation should include the causes, the policy alternatives and policy formulation, and that whatever alternatives are reached through deliberations should be feasible and realistic. Therefore, evaluation criteria are used to ensure effectiveness and efficiency of the policy design. Government agencies that are in charge of implementation must decide

on a policy instrument and a delivery method of the policy, organization, as well as the policy implementation and monitoring process chronologically (Ongolo-Zogo et al., 2014). Implementation must be continually monitored for quality. Step six involves evaluation, which will determine the effectiveness of the policy by measuring the objectives and the actual cost (financial and resource). Following step six, the policy cycle may continue to improve the current policy or it may move on to a new social need.

## Making Public Policy Decisions

Both Ongolo-Zogo et al. (2014) and Ongolo-Zogo, and Bonono (2010) agree that the rationale for making a public policy decision depends on policy analysis and a combination of techniques, together with factors which will support a unique public policy decision to be made. While there is no contingency public policy requirement for a policy decision to be made, every situation is unique and requires a specific policy approach. Therefore, the logic of rational analysis contains a central focus on problem specification, generation of alternative policies, and assessment of policies in support of public policy decision-making (Butler & Allen, 2008). Furthermore, the requirements or techniques used in making a public policy decision include demographic information, geographical information, severity of the problem, knowledge of the problem, economic analysis, welfare economics, qualitative assessments, as well as consequences and the financial resources available (Imani-Nasab, Seyedin, Majdzadeh, Yazdizadeh, & Salehi, 2014; Hewison, 2008; and Holtrop, Price, & Boardley, 2000). This forms the background of the problem and the bases on which a decision can be made regarding the need for implementation, only if there is a specific public policy put in place to guide the implementation process.

In order to understand the complexity of a policy requirement and its consequences on the beneficiaries, it is vital to show that a new contribution to the policy implementation process can be understood as a self-organizing system in which public policy analysts are constantly adapting their abilities to extreme levels in consultation with stakeholders. With the lack of well-focused policies, multiple policy implementation processes to solve an existing problem is self-organizing because national policy is reinterpreted at the local level, with each local organization uniquely mixing elements of national policy with their own requirements. Therefore, even with policy requirements, policy implementation at the local level becomes unpredictable and compliance with national policy emerging sketchier than before. In fact, Houchin and MacLean (2005) criticize complex systems by arguing that "public agencies or organizations are recursive, not adaptive" (p. 422). This means that agencies responsible for specific communities and going through emergencies or challenges, will default if they do not have unique policy guidelines or stability to replicate former or new patterns (Butler & Allen, 2008). Therefore, public agencies may retreat from implementing guided policy patterns because of influence from other factors. By so doing their decisions may not be distributed in an equitable way to the beneficiaries.

Schofield and Sausman (2004) as cited by Butler and Allen (2008) note that public agencies and researchers are "giving more attention to the study of variables than processes in implementation studies" (p. 423). According to Hill (2009) and Dye (2010), the requirement to make a public policy decision constitutes a distinct characteristic of government action in which the analysis of the policy process requires more focus on the stages through which policy issues are generated, developed and allowed to be

implemented. However, there is a need to assess the influence of multiple factors on the development of the policy issue. Anderson (2010) argues that Dye's approach to the public policy process may be adequate for common dialogue, but in order to show a systematic analysis of public policy, a more precise policy approach is needed. In other words, a more explicit and comprehensive understanding of the scope and nature or requirement of public policy analysis is warranted. Rose and Lawton (1999), concur when they state that a policy requirement for a public policy decision is, "a process of making and implementing objectives" (p. 121).

Davies (2000) acknowledges Rose's definition of a policy requirement and also went further to establish that the strategy is "a design or plan for achieving policy objectives" (p. 25). Therefore, it is the government's responsibility to decide which public agencies have the operational resources to achieve the objectives through implementation, and how the considered agencies are structured and equipped. In order to ascertain that government actions are meant to achieve specific objectives, Althaus et al. (2007) posit that public policy analysis is a requirement to meet the needs of communities' or institutions' particular objectives and goals. Starling (2010) confirms the argument by Althaus et al. that a policy requirement is "a specific element of a plan and it is a unit of strategy by which the organs of policy are made" (p. 189).

## Theoretical Foundation for a Rational Choice

According to Howard (2005), from 1960 requirements for a public policy decision making was deliberated upon by each agency's policy analysis division. Pertinent issues were debated upon and a dialogue was reached, then, policy analysts, designers, and planners developed a recommendation for each agency's leadership or management.

However, since the requirement for a policy decision to be made can change at different levels of government (federal, state and local), depending on the circumstances surrounding each situation, policy makers at each level of government then are responsible for their own decision within their area of jurisdiction. Requirements for a public policy decision may also be adapted by organizations or agencies in similar situations. This can be done through a process called diffusion and adaption. However, policy makers are advised that, since the requirements and the circumstances are not contingent to all situations, implementation may experience unintended effects from the adaptation process (Nicholson-Crotty, 2009). It is from this perspective that Santos and Chess (2003) and Hastak, Mazis, and Morris (2001) suggested that an important requirement to be taken into consideration before making a public policy decision is to consult the interests of those who will be affected by that policy decision.

Even though the literature clearly states the need and the requirements for a very clear specific public policy decision to be made, it does not address a specific technique, approach or methodology on how the public policy action should be enacted. The argument here is that the literature does not determine a contingency for all situations or whether one method will be more advantageous than the other. Therefore, to fully assimilate the emerging trends regarding the requirements for a public policy decision, it was necessary to examine the historical perspective on what is required to make a public policy decision.

## Historical Foundation for a Public Policy Decision

According to Lindblom (1958) a policy analysis decision making is primarily constructed on the ideology of incrementalism, in which the requirement for one policy

decision follows a precedent. This type of a system determines a policy decision depending on the requirements laid down for that situation, assessed from a current standpoint, while expected result from implementation are then compared to the anticipated outcome. Furthermore, Lindblom (1959) delineated two techniques that can facilitate public policy decision making; the first of which is the analysis of the outcome of the policy decision before adaptation, and the second is to consider the goals that will be restricted to that policy for the sake of incrementalism to achieve one goal after another. However, Lindblom asserted that the first approach is very challenging, while the second method of incrementalism is ideal as it "takes into consideration all relevant factor(s)" (Linblom, 1959, p. 81). By 1979, Lindblom introduced three incrementalism approaches to policy analysis. The requirement for making a decision in the first approach is to construct a policy analysis which consists of "alternative polices having incremental differences from the status quo" (p. 517). Additionally, the second type has "schemes which are mutually very supporting, simplified and very focused" (p. 517). The third type of policy analysis which Lindblom calls strategic analysis is "restricted to any calculated and thoughtfully chosen set of stratagems or schemes use in simplifying complex public policy problems" (p. 518). Lindblom advanced a contemporary case in favor of three types of strategic policy analysis. Considering strategic policy analysis as a complex problem, Lindblom (1979) posits that the analysis of a policy decision should be regarded as a continuum for communicating decisions. Lindblom further states that this approach to analysis involves multiple schemes like skillful sequential trials which may register errors. However, this system guides leadership to examine accomplishable alternatives that are achievable.

In the second method, Lindblom (1979) notes that "disjointed incrementalism is imperatively a subcategory of strategic analysis" (p. 518) in which the decision maker analyzes evidence schemes which then materialize into a decision. In the third method Lindblom recounts a straightforward incremental policy analysis which is "no more than small or incremental digressions from the status quo" (p. 519). Lindblom also reports that multiple policy actions instead of just one policy action can incrementally effect a change in the status quo of a situation. With the desire to articulate a multiple decisions strategy, Lindblom (1990) argues that a scientific approach or requirement to solving problems can be a very useful tool. Lindblom cautions social scientists and government officials to ascertain the rationale for their own choices as well as alternative choices for communities or individuals affected by the policy decisions they make. In order to achieve the above policy requirement, Lindblom suggests a series of adjustments that will provide beneficial and not detrimental solutions.

Lindblom (1990) alerts that even though policy analysts manage the requirements and provide analysis of a public policy situation, it does not make them decision makers. Therefore, the decision maker with knowledge of the beneficiaries' terrain and circumstances, in terms of wants, desires, and especially needs, is in a better position to make a decision. Walker (2000) found an emerging trend in Lindblom's policy analysis technique, but notes that this technique has been applied in the 1950s as a public policy requirement for decisions making, especially in solving complex problems, guided by methodologies provided by public policy analysts. Public policy practitioners are guided by policy requirement to obtain, analyze, and promulgate information to stakeholders for a broad policy debate on very complex issues with multiple variables and aftereffects

(Walker, 2000). The reality of external forces such as time, technology requirements and human perception or actual needs and wants of the beneficiary constitute the policy actions required and deployed to fix an issue (Walker, 2000). Walker, cited in Gowen (2015) provides an 8-step prototype for policy analysis: a). Identify the problem, b). Identify the objectives of the new policy, c). Decide on criteria (measures of performance and cost) with which to evaluate alternative policies, d). Select the alternative policies to be evaluated, e). Analyze each alternative, f). Compare the alternatives in terms of projected costs and effects, g). Implement the chosen alternative, h). Monitor and evaluate the results.

Similarly to Young and Quinn (2002), Walker (2000) outlined an 8 step model on how policy analysis can be applied to achieve its objectives or goals. The following are the eight steps in the model are: a. Identify the problem, b. Identify the objectives of the new policy, c. Decide on criteria (measures of performance and cost) with which to evaluate alternative policies, d. Select the alternative policies to be evaluated, e. Analyze each alternative, f. Compare the alternatives in terms of projected costs and effects, g. Implement the chosen alternative, h. Monitor and evaluate the results. In the case where there is failure in the 8th step of the policy chain to fully address the concern recognized in step 1, policy analysts must adjust previous applications until the problem is solved (Walker, 2000). This approach was actively used in the 1960s to make policy decisions. The culpability of this approach was that policy analysts did not follow up to see if the methodologies they used and the decisions made from it were properly executed (Howard, 2005). Nicholson-Crotty (2009) posits that all decisions do not diffuse at the same rate, time, and situation. In recognizing the challenges faced by public policy

analysts and the complex nature of the choices they make, Keeny (2006) acknowledges that the requirements for taking any policy action has underlining consequences that can be avoided. Keeny (2006) revealed that a structured policy could lead the decision maker to a positive outcome. In fact, Keeny emphasizes that both the policy analysts and the decision makers must employ a structured methodology and demonstrate a clear understanding of the values needed to identify the objective of the policy (Keeny, 2006). More importantly, Keeny (2006) designed a structured approach to policy requirement that can be used to recognize the usefulness and benefit of a policy:

1. Considering appropriate values
2. Develop these values into functionally specific objectives with achievable goals
3. Shape the objectives map to show their correlation to one another
4. Define and measure the characteristics of each objective and the level of accomplishment for each objective, as well as anticipated consequences.
5. Quantify the level of appeal for all possible consequences (Keeny, 2006).

These policy requirements lay the foundation for determining public values that should be considered by decision makers when deliberating on the decision that will minimize consequences while providing maximum profit or welfare to citizens. Matheson (2009) agrees with Mintzberg's (1983) approach to public policy making by stating that understanding the organization of a corporation and the distribution of tasks within that organization provides efficiency and makes the policy implementation process achievable. To do this, Matheson recognized Mintzberg's six organizational mechanisms within the organization. Matheson framed his approach on systemized mechanisms to recognize policy making modes like expertize, ideology, politics, collaboration,

procedural, planning, autocracy, and visionary (Gowen, 2015). Furthermore, Barrett (2004), cited by Gowen (2015) scrutinized the resurgence of implementation studies to evaluate the effectiveness of public policy actions. He identified a collective number of items that contribute to a policy's implementation failure to include:

1. Lack of clear policy objectives; leaving room for differential interpretation anddiscretion in action;
2. Multiplicity of actors and agencies involved in implementation, problems of communication, and co-ordination between the 'links in the chain'
3. Inter- and intra-organizational values, interest differences between actors and agencies, problems of differing perspectives, priorities affecting policy interpretations, and motivation for implementation.
4. Relative autonomies among implementing agencies; limits of administrative control (Gowen, 2015).

Barret (2004) cautions that implementation constitutes part of the policy action; as such, public policy action is correlated to the Instructional System Development Process commonly referred to as ADDIE. The necessity of a policy makes it imperative to first of all analyze it, design it, develop it, implement it, and then evaluate the policy (Gowen, 2015). Some aspects of implementation are often undermined in the public policy action development process (Barrett, 2004). For example, if the department of health in the NWR of Cameroon were to take a public policy action to construct a new community clinic, part of the implementation process should first of all be to consider the economic capacity, health status, age, and medical profiles (demographics) of the community where

the clinic will be constructed. Silva (2004) response to this type of neglect by establishing the notion of contingent valuation (CV). Furthermore, Gowen (2015) agrees with Silva (2004) by defining valuation as the appraisal, estimation of worthiness or the measure of a person's "willingness to pay for goods" (p. 3); goods being defined as items "not traded in a traditional market setting" (p. 3), like public policy actions. This establishes the argument whether public goods should be free, partially free (subsidized), or not free at all. Despite the current nature of this argument, cost benefit analysis (CBA) or CV is a requirement for public policy planning and public policy decision making (Kocakulah & Joseforsky, 2002; McIntosh, Donaldson, & Ryan, 1999). For instance, through interviews and surveys, policy analysts and researchers can seek to determine how much individuals are willing to pay for services, and still have the capacity to support a public policy decision.

Silva (2004) and Boxelaar, Paine, and Beilin (2006), note that CV provides public policy practitioners to ascertain the value of a community development item on the bases of a cost benefit analysis. As a policy requirement, public policy decision makers can use the CV as a method to draw a scale of preferences based on consultation with stakeholders and the willingness of citizens, their ability, and what type of support they can provide to a public policy, while the policy is still being developed (Amorim Lopes, Soares, Almeida, & Almada-Lobo (2015). Hersh (1999), cited in Gowen (2015), established that a computer based Decision Support Systems (DSS) is a policy requirement decision making method capable of "assisting policy makers in reaching their decisions through the use of Multi-Criteria Decision Methods programmed into a computer" (p. 39). By putting variables and adapting a computer system, public policy

action can be broken down into mathematical equations from which a decision can be reached. However, caution must be taken to ascertain the professionalism and neutrality of the person who will determine the variable and then put them into the computer system to avoid skewing the data with differing interpretations.

Gowen's (2015) work is reflected in the work of Hersh (1999); Van Groenendaal (2003); Jain, Ramamurthy, and Sundaram (2006), confirming that "in group decision support system (GDSS) methodology, the choice versus the procedure is the leading factor" (p. 39). In using GDSS for public policy designing and planning, public policy analysts must fully frame the problem in a way that it will accommodate the GDSS to help in the decision making process. According to Jain et al., the GDSS has gained recognition as a technique used in guiding decisions and decision makers, because it is very interactive and thus facilitates complex issues used by both policy analysts and decision makers working in a group. Gowen provided GDSS as a requirement for policy decision making with an example being "ESRI's and ARCGIS Geographic Informational System software program equipped with the ability to take geographic information entered into data tables by the user with demographics of an area" (p. 40). The characteristics of the demographics of a rural community can be limited or colossal in nature. By the use of this software, a centrally located place within the community can be identified for the construction of a community clinic to facilitate easy access, and to be fair to every user.

The above example explains how to use a GDSS in making a decision. However, to reach a more complex decision, policy analysts can expand on the mathematical model that buttress the decision making process (Gowen, 2015). So far, this is a brief historical

background of the requirement for a policy decision. Therefore, there is also a need to exploit historical methods that are currently in use, as well as new materializing methods which are securing acceptance in contemporary times.

## Contemporary Public Policy Decision Making Requirements

Some of the older public policy making requirements are still being used in contemporary times. Gowen (2015) cited Nilsson et al. (2008) for establishing that no contingent public policy evaluation instrument exists, thus the conundrum of relying on using older research that is still very relevant today, because of the vacuum created by the lack of newer research. Despite the wide availability of older public policy tools, how they are applied to complex contemporary public policy problems remains questionable (Nilsson et al., 2008). Nilsson et al. through 37 case studies postulate that as the requirements for public policy issues are becoming increasingly complex, the challenges become dependent upon complexity and not on the assessment tools. How this is managed depends on the ability of the organization to manage advanced assessment tools in arriving at a solution. Therefore, as public policy requirements are becoming more complex, there is a need to continuously offer public policy practitioners advanced education and advanced assessment tools that can support them in solving complex problems (Nilsson et al., 2008).

Edwards (2005) proposes a communication approach through a six stage model that can support public policy practitioners in making public policy decisions. That model is to identify and then articulate a problem, do policy analysis, undertake a consultative step among all parties involved and evaluate the problem, before making a decision. Gregory (2005) reechoes Decision Analysis as an approach where outside opinion or

public interaction through surveys, interviews and advisory boards are vital tools that can facilitate a positive and unanimous policy decision. This approach is inclusive as it allows those who will be affected by the policy to become fully involved in establishing the policy. What is pivotal in disseminating information and in using a non-traditional approach as a requirement in the public policy decision making process is that, non-traditional decision makers will understand how decisions are arrived at (Gregory, 2005). However, each public policy design, analysis, or decision should be carefully considered against consequences anticipated during and after its implementation.

Gowen (2015) postulated that facilitating dialogue and "communication exchange among stakeholders encourages a mutual understanding, a free exchange of ideas and arrival at a mutually satisfying solution" (p. 47). For example, any deliberation by the legislature or community leaders requires them to act beyond party lines but to act on behalf of or for the sake of the people they sovereignly represent. Yang and Lan (2010) showed that citizens use the internet productively as a tool to express their contempt or discontent regarding how they will be affected by a public policy action, expressing their opinions while discussions are still under deliberation. Jensen (2007) concurred with previous studies carried out by Hersh (1999), Groenendaal (2003) and Jain et al. (2006) cautioning public policy practitioners against the use of influence tactics, exchange tactics, coalition tactics, and ingratiating tactics available at their discretion to skew citizen's public policy opinion.

Paez, Williamson, and Bishop (2006) argue that there is a deficiency in the use of Cost Benefit Analysis (CBA) as a requirement for public policy analysis without the involvement of stakeholders. The CBA often does not incorporate geo-spatial elements

into the decision making process. Instead, it is used where economic, environmental, and social estimate of the cost of a public policy decision is a requirement. While agreeing with Paez et al., Gowen (2015) added that the CBA can be improved upon by adopting a computer based decision support system in the decision making process. However, Paez et al. caution that the CBA can subjectively fail to properly assess in a balanced way, all those who could be impacted by a public policy decision, opposed to a Geographic Informational System (GIS), which can support and enable policy analysts to engage in a balanced approach to decision making.

## Summary

The literature review indicates that there is no unique contingency technique or approach used as a requirement in making public policy decisions. Incrementalism through the use of Group Decision Support System suggested by Lindblom (1990) as a policy requirement does not provide a desirable methodology for public policy decision making. Conceivably, there seems to be no technique that is certainly the best in making policy decisions nor empirically used as a template for making policy analysis. This investigation has filled a gap regarding the challenges that residents of rural communities undergo when they attempt to seek medical treatment, as well as the requirement for a public policy action or decision making by showing that even though there is no specific methodology used in making all public policy decision, each specific policy is most effective in unique situations, when the policy has a clear objective and is customized or designed to solve unique public policy problems.

In the following chapter, I will provide an outline of the methodology I used to ascertain the type of challenges that residents of rural communities in the NWR of

Cameroon face when its residents attempt to seek medical treatment. I will also discuss the methodology used to determine the public policy requirements that the department of public health for the NWR of Cameroon exploits to initiate the construction of new community clinics. The methodology used will be well explained so as to show how the results obtained were arrived at.

# Chapter 3: Methodology

## Introduction

In the Chapter 2, I reviewed available literature on the challenges that residents of rural communities' face when they attempt to seek medical treatment in order to address the issue of the lack of community clinics within rural communities in the NWR of Cameroon. Additionally, I explored the available literature on the requirements used in making funding policy decisions designed for rural communities. My review of the available literature showed the importance of allocating funds for the construction of primary healthcare facilities that are not located at close proximity to existing healthcare facilities and metropolitan areas where residents of rural communities can easily seek medical treatment. Furthermore, the characteristics shaping the policy requirements set forth by the state departments of public health to fund the construction of primary healthcare facilities in particular rural communities deemed conducive to this study were also explored.

It was clear that a large and detailed body of research exists addressing the requirement for funding policy decision making for education and disease prevention in Cameroon. However, there was a gap in the literature around the lack of a funding policy for new clinics in rural communities in the NWR of Cameroon. Therefore, in Chapter 3 I will address the design of this study, the sample size, and the analytical techniques I used to address the gap identified in the literature.

In Chapter 3, I will also describe my rationale in using this research design to obtain the information necessary to answer the RQs. The literature has shown that there is no universal approach in designing or developing public policy actions or decisions that

can suite or solve all public policy problems. This chapter will also include the researcher's role in the study, the instruments used, participant recruitment rationale, recruitment procedures, participation and data collection, data analysis strategy, management of trustworthiness, and the ethical scheme.

## Research Design and Rationale

The purposes of this qualitative study were twofold. The first was to determine the challenges that residents of rural communities face when they attempt to seek medical treatment in NWR of Cameroon. The second was to evaluate the current public policy funding requirements, if any, that exist at the NWR department of public health.

I have provided the research questionnaire in Appendix A. I developed the following RQs to guide this study:

RQ1: What are the health care challenges that people who live in rural communities in the NWR of Cameroon face due to the lack of new clinics?

RQ2: What are the funding policy requirements for new clinics in rural communities in the NWR of Cameroon?

I conducted 10 interviews in order to gather information to answer the RQs. The following are a sample of the RQs found on my questionnaire: What are the challenges that residents of rural communities' face when they attempt to seek medical treatment? Are the barriers that hinder access to public health services facing only individuals or rural communities as a whole? What is the contrast regarding access to healthcare services in rural areas as compared to urban or metropolitan settlements? Are there any policy formulation requirements or designing strategies in developing a funding policy for the construction of new rural community clinics? Are decision makers having any

criteria on which to make a priority decision to fund a new rural community clinic? Is there a capital investment budget equitably distributed according to a specific criterion, and if so, what are the requirements that policy analysts at the department of public health for the NWR consider or use to effectively identify the need for the construction of a new community clinic? By gathering realistic answers to these questions, I can help the department of health achieve its designed goal of bringing health opportunities closer to the people. The answers to these questions were not found in the literature review, so I designed this study as the first step in addressing them.

I used a phenomenology research design to conduct 10 interviews with rural community residents regarding the challenges they face when they attempt to seek medical treatment as well as the requirements which form the basis for a funding policy decision for the construction of new community clinics by policy designers, policy planners, policy analysts, and policy mangers at the NWR delegation of public health. Using a phenomenological research approach, I was the main instrument to record the experiences of the participants. Creswell (2013) noted that by conducting interviews, the researcher can capture the experiences of participants; however, when capturing the experiences of the participants, the researcher should avoid introducing their own thoughts and opinions into the research study and remain unbiased and neutral (Creswell, 2013).

I deemed a phenomenological research study conducive for this study because it captures or records the experiences of a small participant pool, usually between five to 25 participants (see Creswell, 2013). Mason (2010) and Moerer-Urdahl and Creswell (2004) acknowledged that the size of the phenomenological investigation respondent pool should

be above five participants. A phenomenological study permits the researcher to record the experiences of a manageable sample of a research study (Creswell, 2013). Using interviews during a phenomenological study allows the researcher to acquire an understanding of why the interviewees behaved or acted in a particular way (e.g., in seeking medical treatment and in failing to make a policy decision regarding new primary healthcare facilities in rural communities). Making a decision to reveal a process is not enough, but understanding the implications of a decision is even more important (e.g., prioritizing a thought or reflection on how a policy decision will affect citizens and their challenges; Gowen, 2015). It is from this background that the results obtained from interviews can either be organized or composed into a report that directly answers the RQs. Such a report then forms the basis for further research.

## Role of the Researcher

My role as the researcher in this study was to conduct interviews with each of the 10 participants who took part in the study by responding to the research questionnaire. To respect the research protocol that I designed for this study, the same set of questions were administered to each participant and their responses were recorded by me. I then summarized the participants' responses in note form without the use of video or audio recorders. I did not have any prior personal or known relationship with the study participants before the interviews were conducted, and I am not a resident of any of the communities selected for the study nor an employee of the department of public health for the NWR of Cameroon.

In order to reduce the potential for any bias, I used criterion sampling in the selection of the participants. To further reduce the potential for bias, I introduced myself

to participants as a PhD student who was conducting a study for my dissertation. By not correlating each participant's responses to another, focusing on a predesigned script, and administering the same set of questions in 60 minutes interviews with each participant, I hoped that the risk of any potential bias were greatly reduced.

Putting the nature of qualitative studies into perspective, the interaction that occurs between investigators and participants is ethically demanding and challenging for the researcher, since they are either physically or personally the main instrument used at different stages of the research study (Creswell, 2013). Therefore, it is important for researchers to design specific and essential guidelines for any study (Creswell, 2013). In this study, I found no known nor expected ethical issues. Moerer-Urdahl and Creswell (2004) noted that, to carry out a study, the interviewer must consider ethnocentric blinders to eliminate preconceived ideas that could either consciously or unconsciously compromise reliability and validity of the study. To mitigate potential bias, I also gave each participant the same set of interview questions in advance (before) and during the interview.

## Methodology

### Participant Selection Rationale

In this study, I interviewed three employees from the NWR delegation of public health and seven participants from rural communities, one representing each of the seven divisions that make up the NWR, constituting a total of 10 participants. The seven participants selected from each of the seven divisions of the NWR of Cameroon are considered rural community residents, with the ratio of rural to urban communities

almost replicating the region-wide ratio of rural to urban communities (7 rural: 3 urban). All the 10 participants consented to their participation.

The main yardstick I used in selecting participants for the first group of this study was that the participant should be a state employee of the NWR delegation of public health, while the second group of participants was composed of adult individuals that resided in a rural community in each of the seven divisions of the NWR. This approach was not only reliable but also a fair representation of the participant pool within the NWR as a whole. The NWR delegation of public health is headed by a regional delegate who works in collaboration with policy designers, planners, analysts, and managers who do feasibility studies, analyze the results, and then recommend public health policy decisions for approval by the provincial delegate of public health.

My reason for conducting this study in the NWR of Cameroon is because I am familiar with the terrain in this region. Therefore, it was easier for me to maneuver or mitigate some of the challenges in the process of conducting the research interviews with participants in the region. Mitigating any possible difficulties in the process of conducting the interviews turned out to be successful as no complications were recorded. I successfully selected three employees of the provincial delegation of public health for the NWR and seven residents of rural communities, taking into consideration their geographical and demographic location within their division of resident, in order to facilitate their closeness for easy access. Those state employees or rural community residents who declined to participate in the study were immediately replaced by another willing volunteer participant.

The following list are the methods and or procedures I used in approaching and recruiting study participants:

1. I sent a letter 3 weeks (the interview window) in advance to each potential rural community resident and to employees of the NWR delegation of public health introducing the purpose of the research and requesting for their assistance to participate in the study. The initial request to participate was sent through an e-mail bearing the consent form and the interview questions.
2. I sent out reminder letters as a follow up to the initial letter that was sent to the potential participants reminding them and also asking for their willingness to participate in the interview. However, those rural community residents and employees from the department of public health who were not willing to be interviewed were thanked for being honest and new participants were selected and letters were sent requesting for their participation in the study. This approach was repeated before 10 total participants expressed their willingness to participate.
3. An additional set of thank you letters bearing the consent form and interview questions was sent out to the participants who were willing to participate in the study 5 days before the actual interview.
4. I conducted the face-to-face interviews with residents of rural communities and employees of the provincial delegation of public health and by phone for those participants who only preferred a phone interview for their own convenience.
5. I conducted all the face-to-face interviews in a natural setting, taking into consideration the availability of the participants. All interviewees were sent an analyzed copy of the interview results.

**Sample Size**

Creswell (2013) posits that a phenomenology research study is oriented or designed to expose the experiences of the participants. However, there is an attainable saturation point where the data being collected no longer yields any new experiences nor provides an insight for the study. That saturation limit for a qualitative phenomenology study is between a sample size of five - twenty-five participants (Mason, 2010). It is from this background that the number of participants for this research study were 10 participants, as this falls within the range of five to twenty-five participants.

**Instrumentation**

I designed the research questions and I served as the main data collection instrument for this study (interviewer), and interviewees (participants) provided responses to the RQs that were recorded by the interviewer. I asked all the participants the same set of interview questions. No employees from the delegation of public health for the NWR nor participants from the rural communities provided documents or data from a source that was either restricted, had limited access, was illegal or that was legally binding. At the beginning of each interview, I informed all participants not to provide me with any information that was restricted or legally binding.

I carefully designed the interview questions such that they will provide me with the best possible reliable answers. For example, research questions posed to rural community residents addressed the challenges they face when they attempt to seek medical treatment; and questions posed to public policy designers, planners, managers, and analysts addressed the requirements for making funding policy decisions regarding the construction of new clinics in rural areas. Prior to the actual interviews, I tested the

research questions on my colleagues. Firstly, to determine the perception of the participants, secondly, to determine the validity of the questions and thirdly, to determine the readability of the questions. I then ensured that reliability and validity of the data collection process was not compromised in as much as I repeated each respondent's response back to the respondent. Lengthy responses were paraphrased back to the participant to ensure that precision of their responses were not altered.

## Participation, Recruitment Procedure, and Data Collection

### Participants

I considered the participants as an important resource that provided data in a confidential manner. Therefore, the participants who volunteered to take part in this study provided information that will forever advance the human course for the future. Additionally, this study is designed in such a way that the investigator is not only committed to protecting its human subjects but also makes it an obligation to protect the rights of human subjects and their welfare.

Despite the fact that follow up interviews were not required, follow-up phone calls to each participant were made to enquire if they had any questions or additional information. The provision of the results of this study were made available to all the participants after it was approved. Making research results available to the volunteers who participated in the study is a way of thanking them for their initiative and assistance for making themselves available. The second reason why a dissemination of the results were made available by letter to the participants is because, they are beneficiaries of the result, and so may want to put the results to use at their own discretion. Follow up phone calls were made to the participants to ascertain they receive the research results.

**Recruitment Procedure**

Table 2

*Details of How the Data Were Collected*

| Question | Method | Setting |
|---|---|---|
| Where will data be collected from participants? | Information will be collected either face-to-face or telephonically depending on the availability of the interviewees | Data will be collected from the participants in each of their offices (Delegation of Public health) and in community town hall settings or from their homes (residents of rural Communities). |
| Distribution of data collection within Region events | 3 interviews at the regional delegation of public health for the NWR and 7 in a rural community in each of the divisions that make up the NWR | Data collected from one participant each at the regional delegation of public health and one per division, with scheduled follow ups visits if needed. |
| Data will be collected by: the researcher | In a natural setting or in their homes | For this study, data will be collected by the researcher |
| Time allocated for each interview events | Both telephone interviews and face-to-face interviews | Interviews are expected to last between 50-60 minutes. |
| Method used in recording interview data (participant's responses). | | The investigator will record each participant's responses manually on a data sheet as the interview progresses until the end. |

Table Continues

| Question | Method | Setting |
|---|---|---|

| | | |
|---|---|---|
| Follow-up will be initiated if initial recruitment results in fewer than 10 participants. | | Additional participants will be recruited to make sure that the 7 rural to 3 urban ratio is achieved. |
| How will the data be stored | Protected information | Data collected for the study will be kept in a safe (locked) place and computer system were only the researcher has access to (password active). |

The data were collected from each of the participants through individual interviews. I then manually recorded the participants' responses on a copy of the questionnaire assigned to each participant. Each questionnaire was assigned to each participant with an identification number. For example, the questionnaire assigned to participant number one from the regional delegation of public health for the NWR was coded RD001. In this case, RD stands for Regional Delegation. Similarly, the questionnaire assigned to the first of 7 participants from each division of the NWR is coded MD001. In this case M stands for Mezam (first letter on the name of each division) and D stands for Division (Mezam Division). Each question solicited a response from the participant, while the answer was summarily written down. During the data collection process, there were no unusual circumstances experienced. The length of time allocated for the collection of data was unexpected. This flexibility was anticipated to occur in order to enable the researcher not only to obtain more information from the participants, but data that is rich in both content and context.

Data were collected from participants of the Regional Delegation of Public Health for the NWR in their offices. This was based both on the location of public health offices and the availability of public health staff. On the other hand, data was collected from the participants living in rural communities in the NWR, at community halls. However, those participants who were not able to make it to the community halls were interviewed at the comfort of their homes telephonically. In the case of a telephone interview, the researcher would place a telephone call to the participant. All participants acknowledged that the researcher either placed the call when they were at work or at their homes. Information were collected only once from each participant. Participants from the delegation of public health were initially contacted only after the Institutional Review Board (IRB) approval of this study (Walden University IRB approval Number 04-25-17-0522362). The first Interview was conducted on the 4th of May 2017, while the final interview was conducted on the 15th of 2017.

Data were collected by asking each participant the same set of questions from the IRB approved questionnaire. Each interview was conducted between 50 to 60 minutes. However, majority of the interviews were conducted in approximately 55 minutes. The following two reasons accounted for longer interviews: a). the garrulousness of some participant's and b). participants' curiosity to ask questions to the researcher. Majority of the questions asked to me ranged from my background, to what I planned to do after graduation. By asking these questions to the researcher, the participants created a rapport between the participants and the investigator. One of the longest interview was conducted with a participant who was initially unwilling to provide information, but after creating a rapport with me, the participant agreed to my request to participate.

**Data Analysis Plan**

All the responses from all the three participants at the regional delegation of public health for the NWR and responses from the seven participants from rural areas located within the seven divisions that make up the NWR of Cameroon were either transcribed or recorded during the interviews. Then, the researcher sought to identify common ideas, phrases, assertions, statements, declarations, or common themes that are identified as a challenge or barrier faced when residents of rural communities attempt to seek medical treatment, and for those state employees at the Regional Delegation of Public Health for the NWR to identify or to describe the requirements for a funding policy for the construction of new clinics in rural NWR. All participants were allowed to expand or prompted by the researcher to expand on their responses whenever necessary. To be very consistent with the phenomenological research approach, the researcher conducted interviews with Policy designers, planners, analyst, or mangers at the NWR Delegation of Public health. Through this phenomenological approach, I recorded the experiences of the participants. By conducting interviews, the researcher was able to capture the participants' experiences. During this study, I captured the participants' experiences by asking the participants the same set of questions from a standardized questionnaire. By using a standardized questionnaire, the investigator ensured that the same set of questions were asked of each participant.

After all the interviews were completed and all the information obtained from the interviewees, were analyzed, the commonality of answers was distinguished. No software program was used to analyze the data collected from participants. The reason why no software program was used to analyze the data was because the data was analyzed

utilizing the topic emergent or subject theme analysis approach. All the responses collected were put in a predesigned table. Participants occupy the rows according to the order in which they were interviewed. I did not only preserve, but also protected the participant's anonymity, since I was the only person who knew the order in which the participants were interviewed. The column headings were occupied by the questions. Employing the use of the matrix system ensured the commonality of the responses. The data was then analyzed using Colaizzi's (1973, 1978) seven-step method for analyzing phenomenological data and cataloging emerging themes.

The matrix system helped to distinguish the similarity or divergence of participants' answers to be very clear. All the responses collected from participants were then summarized in the matrix cell. For instance, some participants acknowledged that they used the cost benefit analysis as well as the group decision support systems as a requirement in making health policy decisions as a decision making approach. Both answers were placed into a matrix cell as "CBA," and "GDSS" as methods used.

No ethical implications were registered during the recruitment of participants. No participants expressed that they were unwilling to be included or removed from the research study after the interviews have been conducted. However, if any participant had expressed that they wanted to be removed from the research study, all the data collected from them would have been eliminated and void of being included in the results.

Saldaña (2013) reports that the primary bases of qualitative investigations are to gather and describe data on what the researcher can see and what the researcher has heard from respondents. All the data collected from participants will be treated as anonymous. However, in reading through the answers provided to questions in the report, a participant

could self-identify. All information collected from participants was accomplished in accordance with IRB policy. The data collected for the purpose of this study was stored in a safe location, and upon approval, on a secured computer.

Participants' responses were progressively being added in the table in which the commonality of answers were being developed, in order to obtain a fair representation and common results across the board. Therefore, an equal chance of each participant's response and commonality being taken into consideration will be evenly distributed. Given that the data analysis for this study was manually completed, those responses which were considered to be discrepant responses also provided useful data used in determining if the research questions were fully and appropriately responded to.

## Evidence of Trustworthiness

Several guidelines were put in place to make sure that the credibility of the findings represents and reflect my intent as stipulated in the interview protocol and the constructed realities of the participants (Creswell, 2013; Guba & Lincoln, 1989). This will be respected by checking on each participant's primary identity. In all cases, responses will actually be repeated back to the participants or a copy of the interview transcripts will be returned to participants for a review to make sure that their thoughts and expressions were accurately captured (Creswell, 2013; Stake, 2010). Participants' constructs were observed and recorded as they occurred throughout the process (Guba & Lincoln, 1989). According to Guba and Lincoln (1989) the process of progressive subjectivity is a way to integrate the constructions articulated by participants so that they can be included into the findings. By so doing, the conclusions will reflect the outcome of

a collaborative endeavor between the participant and the researcher (Guba & Lincoln, 1989).

**Credibility**

According to Trochim (2006), the creditability of the information collected during a study is the credibility of the study as viewed by those participants who actually responded to the questionnaires. I presented the research questions several times to the participants to make sure that the truthfulness or duplication of the participant's responses truly reflected their thoughts and expressions. Every participant who took part in the study was asked the set of same questions. No participant expressed any intent to change their previous answer when they were asked the same questions the second time. However, each participant was given an equal chance of either changing their previous response or expanding on their previous answer. Even though when asked the same set of questions again, some participants changed their words, the context and intent of their response did not change. However, the asking of questions to participants the second time often results in an anecdote (Creswell, 2013).

**Transferability**

A determined attempt has been put in place to make sure that there is a fair representation from all the rural communities that make up the seven divisions of the NWR of Cameroon, as well as the three policy experts from the regional delegation of public health for the NWR of Cameroon (Guba & Lincoln, 1989). During the interviews, there will be more focus on the details provided by participants on the peculiarities of policies, the uniqueness of challenges to each rural community and geographical location, and the evolution of access to medical treatment. Even though generalization was not

intended for this study, the context or subject explored will provide an insight that could ease or facilitate applicability and transferability of the findings to rural communities in other parts of Cameroon with similar characteristics (Creswell, 2013).

**Dependability**

The investigation was distinguished by conscientious documentation and recording of developments as they happened or being developed throughout the process. All choices made regarding methods, decisions taken with respect to the participants, the interview settings, as well as both the opportunities and the challenges faced throughout the process will be documented to safeguard dependability on the result (Creswell, 2013; Guba & Lincoln, 1989). I will be accountable to report any changes throughout the process that may either affect or interfere with information obtained (Trochim, 2006). All the 10 participants in the study were asked the same set of questions, using the same research instrument. Participants were either interviewed on a face to face basis or telephonically.

**Confirmability**

There will be heed on the construct developments that are grounded in the participants, so that a clear understanding will create the link between the conclusion drawn from this study and the participants from whom information was collected. Doing so is a criterion for addressing the confirmability of the result (Creswell, 2013; Guba & Lincoln, 1989). As anticipated, data were obtained from the responses provided to the open-ended questions and documents provided by the participants during the data collection process (interviews). Observations will be noted during the interviews which will then provide useful information of the operational challenges stated in the

interviews. The use of two sources of data in the study or triangulation is intended to enhance the trustworthiness of the findings (Creswell, 2013; Stake, 2010). Providing standardization of the research instrument and record keeping is intended to ensure the confirmability of the results. Additionally, participant's responses to the research questions will be recorded manually and then repeated back to the participant to encourage expansion on their responses and to ensure that the participants' responses were clearly understood by the researcher, and to make it possible for other researchers to duplicate the result for other rural communities with similar characteristics. All the transcripts developed during the interviews will permit other rural health policy investigators to confirm the result of this research.

## Summary

I conducted 10 interviews; three with policy designers, policy planners, and policy managers working at the regional delegation of public health for the NWR, and one participant from each of the rural communities that make up the seven divisions of the NWR. This ratio of 7:3 is a reflection of rural to urban communities. 10 interviews were conducted in order to collect the data for this study. The questions below guided this study:

RQ1: What are the health care challenges that people who live in rural communities in the NWR of Cameroon face due to the lack of new clinics?

RQ2: What are the funding policy requirements for new clinics in rural communities in the NWR of Cameroon?

I obtained IRB approval prior to conducting the interviews. During the interviews, I recorded the respondent's responses on an answer sheet attached to a copy of the

questionnaire. In the following chapter, I will provide details of the results for this study.

# Chapter 4: Results

## Introduction

The purposes of this phenomenological study were two fold. The first was to investigate the challenges that residents of rural communities face when they attempt to seek medical treatment. The second purpose was to examine if there are any identifiable health care funding policy requirements for the construction of new community clinics at the regional delegation of public health for the NWR of Cameroon. The following were the two RQs guiding this study:

RQ1: What are the health care challenges that people who live in rural communities in the NWR of Cameroon face due to the lack of new community clinics?

RQ2: What are the funding policy requirements for the construction of new clinics in rural communities in the NWR of Cameroon?

In this chapter, I will present the data collected from the face-to-face interviewing of a total of 10 participants. The participants were categorized as follows: (a) three healthcare policy designers and managers from the regional delegation of public health for the NWR and (b) seven residents, one from each of the seven divisions that make up the NWR. According to the (Cameroon Data Portal, 2015), the NWR has approximately 2 million inhabitants, 46.8% of which live in rural communities. I analyzed the data using Colaizzi's (1973, 1978) seven-step method for analyzing phenomenological data and cataloging emerging themes as I detailed in Chapter 3. A presentation of the participants' demographic identity will be presented, followed by a detailed discussion on the themes categorized according to the RQs. With RQ1, I sought to know the challenges faced when

rural residents attempt to seek access to healthcare services. With RQ2, I elucidated the requirements that guide the decision for a funding policy for the construction of new rural community clinics from policy designers. My interpretation of the findings constitutes all the data collected for the purpose of this study. This will be followed by a summary of the results and proof of quality work throughout the study.

One item that was distinguishable from the results of this study was that policy designers and managers at the regional delegation of public health for the NWR make more day-to-day operational decisions than they make policy decisions. Furthermore, regional health policy designers and managers do not have the authority to make policy decisions over the entire region. However, policy designers and managers for the region do make public policy recommendations to policy designers and policy managers at the ministry of public health located in the capital city of Cameroon, Yaounde. Therefore, there is a board of commissioners at the ministry who ultimately make the public policy decisions affecting each of the 10 regions that make up the country. Furthermore, public policy designers and managers at the NWR who constitute and represent the regional board of commissioners are responsible for conducting feasibility studies and investigations, analyzing the problem, and then presenting their recommendations to the national board of commissioners at the ministry of public health for final decisions. Even though the regional policy designers and managers do not ultimately make any policy decisions at the regional level, they make recommendations to the national board and in some cases, the board adopts the recommendation.

It is worth noting that I found that the implementation of structural projects approved by the ministry of public health, like the construction of new healthcare

facilities, is carried out by, and supervised by the ministry of public works. The project is financed by the ministry of finance when approved by the national contract tender/consultative board. Consequently, regional policy designers or managers are de facto of tactical and operational decision makers. In the rest of this chapter, I will present the demographic information of the participants, data analysis, data trustworthiness, and the results of the study.

## Demographic Data

As shown in Table 4, a total of 10 participants made up the sample in this study which was composed of three healthcare policy designers, planners, and managers at the regional delegation of public health for the NWR and seven rural residents, one from each of the seven divisions that make up the NWR of Cameroon. The participants' ages varied from 21–80 years old. The health policy designers and managers had either the same or similar professional training at the masters or Doctorate levels, with close proximity in their economic statuses. The seven rural residents who took part in this study had diversified socioeconomic statuses, with six of the seven either having a high school diploma, lower academic certificate, or no education at all. Of the seven rural residents, only one had a professional diploma, Higher National Diplomat (HND) in nursing holding a Registered Nurse (RN) license, appointed by the regional delegate of public health for the NWR to manage an outreach public healthcare center. One policy designer had six years of professional experience; the second one had 11 years of professional experience, and the last one had put in 14 years and three months in public health services. All the three health policy designers and managers had served in at least three positions, including the health policy designing and research division; health policy

assessment and evaluation division; or the health economics, planning, and finance division.

All the three policy designers who took part in the study lived in the city, and so, were able to show the contrast in accessing healthcare services in a city, as compared to those who live in rural areas. In fact, all the three policy designers and managers acknowledged that according to their records, rural residents are comparatively more exposed to and likely to practice risky health-related behaviors; experience higher rates of chronic conditions; be more likely to be uninsured for a very long time; and are comparatively less likely than their urban peers to receive several health care services, including tests for various chronic conditions. Most of these limitations in healthcare access in rural areas is attributed to fewer health care providers (Georgetown University, 2012).

Table 3

*Participants Demographic Information*

| Variable | Healthcare Policy Designer. | Urban Resident (n = 3) | Rural Resident (n = 7) | Total (n = 10) |
|---|---|---|---|---|
| **Gender: Male** | 2 | 2 | 3 | 5 |
| Female | 1 | 1 | 4 | 5 |
| **Educational: Highest level completed** | | | | |
| College/university | 3 | 3 | 0 | 3 |
| ND/HND | 0 | 0 | 1 (RN) | 1 |
| High school | 0 | 0 | 3 | 3 |
| Middle school | 0 | 0 | 1 | 1 |
| Elementary | 0 | 0 | 2 | 2 |
| No education at all | 0 | 0 | 0 | 0 |
| **Type of education completed:** | | | | |
| Professional: Public health | 3 | 3 | 1 | 4 |
| Nonprofessional | 0 | 0 | 6 | 6 |
| **Resident of:** | | | | |
| Urban area | 0 | 3 | 0 | 3 |
| Rural area | 0 | 0 | 7 | 7 |
| **Participant's age group:** | | | | |
| 21–40 | 0 | 0 | 1 | 1 |
| 41–50 | 1 | 1 | 2 | 3 |
| 51–60 | 2 | 2 | 2 | 4 |
| 61–70 | 0 | 0 | 1 | 1 |
| . 71 - 80 | 0 | 0 | 1 | 1 |
| **Longevity of service: (Years/months)** | | | | |
| Length of time in current position | 6–14 | 0 | 3–40 | 3–40 |

*Note.* The urban resident column is highlighted to showcase the contrast between participants who live in urban/metropolitan areas compared to participants who live in rural communities, and is not part of the totals. The totals is the sum of the policy designers and the rural residents.

Of the three healthcare policy designers or managers working at the regional delegation of public health for the NWR participants involved in this study, one held a masters' degree in health economics and finance, the second held an MD degree and a master's degree in health policy management, and the third held a doctorate degree in public health policy and administration (see Table 4). All three participants had served at

the regional delegation of public health for the NWR in their capacities as healthcare policy designers or managers. Therefore, since all the three policy designers or managers live in an urban setting, this provides the statistics to compare and contrast access to health services in a metropolitan area as compared to access to healthcare in rural communities.

A total of seven participants from rural communities located within the seven divisions that make up the NWR participated in the study. Out of the seven, three were men and four were women, and their ages ranged from 21 to 80 years old. At the time of this study, one participant from a rural community was managing an outreach healthcare center supervised by the local district medical officer. This participant was the only rural respondent who had attended college. The occupations of rural participants varied from subsistence farmers, one teacher, one registered nurse heading an outreach healthcare center, one petty trader, and one retired civil servant respectively. These respondents all had at least one child and were either married, widowed, or divorced. The results showed that residents in five (71% of the rural communities of NWR) of the rural communities who took part in this study did not have any healthcare facility in their communities. They either relied on basic survival skills, used the healthcare services located far away from their communities, depended on the services of traditional doctors, or sought the services of a herbalist.

## Pilot Study

Even though I anticipated carrying out a pilot study prior to testing the RQs, that pilot study was not actually conducted. However, throughout the development and the

design stages of the RQs, I submitted the questions to my colleagues for a review for clarity, context, and in order to maintain quality. Their reviews of the questions then led to modifications and refinements. After submitting the questions to the IRB, no further changes were advised or suggested by the IRB.

## Theme Clusters and Themes

The following sections are organized around the two theme clusters that represent the two RQs. I have categorized the 26 themes that make up the theme clusters using Penchansky and Thomas's (1981) five dimensions of healthcare access: availability, accessibility, affordability, acceptability, and accommodation. Sixteen themes emerged from Theme Cluster 1 (RQ1), while 10 themes emerged under Theme Cluster 2 (RQ2).

### Theme Cluster 1: Challenges and Barriers that Residents of Rural Communities Face When They Attempt to Seek Medical Treatment

Both state employees and rural participants (one rural resident from each of the seven divisions that make up the NWR) responded to RQ1. All the participants were selected using criteria sampling. All the respondents recounted the main challenges and barriers they faced when they attempt to seek medication treatment and 17 themes emerged from the responses.

#### Availability

**Theme 1: Lack of healthcare facilities.** All 10 respondents acknowledged the lack of health care facilities in rural areas. Respondent Number 7, 9, and 10 emphasized that if there were health centers or clinics in their community, people will not have to drive long distances under circumstantial or hard conditions to attain medical treatment in the metropolitan areas. Additionally, Respondent Number 5 and 8 said that more people

die in their community as compared to the city because of the lack of a health centers or clinics. When I prompted them to expand on their responses, Respondent Number 5 and 8 said that primary healthcare facilities in the cities do not only offer treatment, but also offer health care education, preventive care, initial healthcare treatment, antenatal, and after birth healthcare services to women and babies. Respondent number 4 and 6 were more worried about the number of rural residents who die before reaching the age of 40, and most especially those who die before reaching healthcare facilities in metropolitan areas due to poor road networks on which most patients are transported. Mortality and morbidity rates can be drastically reduced by creating at least a primary healthcare facility where initial treatment, healthcare prevention, and health education can be offered. Respondent number 1, 2, and 3 acknowledge that there are so many healthcare facilities in the city of Bamenda where they live, however, they stated that the lack of healthcare facilities in rural areas is an impediment to the social wellbeing and social injustice to rural residents, which subsequently lead to higher death rates in rural areas.

**Theme 2: Workforce shortages.** According to respondent 6 and 10, lack of healthcare professionals in their communities has inhibited access to healthcare services by limiting the supply of available services. Most people who have received training as doctors, nurses or aids end up looking for greener pastures in the cities. Respondent number 4 and 5 acknowledge that these shortages in healthcare professionals have given quarks the opportunity, not only to jeopardize the lives of rural residents who seek their services, but also for providing their services at unaffordable rates. Respondent number 4 narrated the story of: a pregnant woman who recently died in the hands of a self-proclaimed nurse. It is only after police investigations that, the community was informed

that the self-proclaimed nurse has only been trained to offer nursing aid services. Respondent number 7 confirmed the story and added that, the so-called quark nurse offered services ranging from selling drugs, drug prescription, consultation, midwifery, offering education on preventive care, some gynecological services, and referral services.

According to the ministry of public health, as of August 2015, 66% of primary health care professional shortage areas were located in non-metropolitan areas. Respondent number 1 and 3 suggested that some of the ways that rural areas can address these workforce shortages could be to partner with other healthcare facilities, increase staff's pay and flexibility, improve recruitment and retention of healthcare providers, as well as using telehealth services. Additionally, respondent number 2 stated that both the government and legislature should offer reasonable student loan repayment plans and loan forgiveness programs as an incentive to recent graduates and healthcare practitioners, so that after serving in rural areas for a certain period of time student loans can be forgiven. By so doing, it will attract more healthcare professionals to practice in rural communities. Respondent number 5, 7, 9, and 10 acknowledge that even though there is a general shortage of healthcare professionals, they know some nurses who have graduated from nursing schools, public health schools, and medical schools in their communities in the NWR and beyond, but could not find a job, with an exception of primary healthcare physicians who are very scarce to find.

**Theme 3: Lack of medical equipment.** Two of the rural residents (28.6%) who have one healthcare center each in their communities reported that lack of basic primary healthcare equipment in rural health centers was very frustrating to healthcare professionals and discouraging to residents of rural communities. Participants 5 and 8

expressed their frustration with the government's inability to provide the few rural healthcare centers with fundamental medical equipment and supplies, stating that these barriers discourage most rural residents from continuing to seek care at rural health centers. Participants 8, 9, and 10 reported that rural healthcare centers needed to have labor rooms, laboratory equipments, x-ray equipment, adjustable beds, netted windows, and an ambulance. Participant 5 and 10 lamented that even though they have one outreach health centers in their community serving everyone, no ambulance is available to transport critical cases to experts for advanced medical treatment or even to a well-equipped medical facility in the metropolitan area. Lack of ambulance services at rural health centers interferes with the ability of health care professionals to respond to emergency health situations (Participant 1 and 3). Participant 8 added that rural health centers lacked the equipment to do a complete needs assessment or to examine pregnant women properly:

> My neighbor lost a lot of blood when she went to deliver her baby at our community health center; the health care center could not do a blood transfusion, have no resident physician, physician assistant, nor a nurse practitioner, and my neighbor almost passed away, but God saved her life.

Participant 4 who is a health care provider remarked that "new diseases come up every day but you cannot treat them just by looking at the patient. Therefore, rural health care centers need lab equipments to properly diagnose infections for doctors to do correct prescriptions." Participant 6 indicated that "it is not only dangerous, but it is also very risky to rely on blind prescriptions or treatment of infections." In addition, Participants 4, 8, and 10 reported that rural health centers lacked obstetric equipment such a vacuum

extractor, forceps, sterile gloves, obstetric forceps, an obstetric table, and essential or basic drugs. Participants 5 and 6 concluded that it is very disappointing and frustration for health care providers and patients for rural health centers to lack the basic or most essential drugs or equipment needed to optimize care.

Fifty eight percent (4) of the rural participants were quick to point out that some of the health centers had old and faulty equipment to measure common healthcare services like vital signs. Participant 6 observed that "patients are increasingly becoming more concerned about the quality of care they receive in rural health care facilities and more demanding about treatment procedures that have been put in place.

**Theme 4: Lack of an ambulance or other transportation**. The deficiency in poor transportation system has created a great barrier to the day to day operation of the rural primary health care system reported Participants 1, 4, 7, 9, and 10, especially when attempts are being made to transport patients under critical conditions to emergency rooms on time. Participants 4, 8, and 9 admitted that the absence of a reliable means of transportation for both rural health care facilities and residents alike hinders access to health care and the ability of rural primary health care facilities to respond to emergency and nonemergency situations. Participant 7 expressed that rural communities and local government areas in the NWR do not have any organized public transportation or taxi services, hence responding to emergency medical situations is very difficult even if nurses and midwives were able to handle the emergency. Even though among the seven rural residents, only the head of the outreach health center has a bike, residents who have their own transportation are still hindered by security concerns and poor roads, especially during the harmattan and rainy seasons, which could also be very challenging during an

emergency or when a pregnant woman starts labor during the night (Participant 10). Participant 5 expressed that, for security reasons, bikes do not work in the night in rural areas, and so it is difficult to seek the services of a bike rider in the middle of the night, and then wait for over three hours in times of emergency for any bike rider who may even want to take such a risk to arrive on the scene, before embarking on another long-distance journey to the closest healthcare center. This scenario makes rural transportation more expensive and unaffordable, especially if residents have to pay for both transportation and healthcare costs at the same time. To highlight the significance of transportation in emergency situations, Participant 6 described a particular case where the life of a pregnant woman whose life would have been saved had it been there was available means of transportation:

A pregnant woman started bleeding profusely at home. A neighbor volunteered to convey this woman on a bicycle to the nearest healthcare center which was 3 hours away that night. Even though there was a phone conversation between the woman's husband and medical staff at the health center that night, there was no ambulance or any other means of transportation to convey this woman to the health center or to the hospital. So many hours got wasted before another community leader was contacted that night to volunteer his van so that this woman could be conveyed to the hospital. Unfortunately, she passed away before reaching the hospital.

**Theme 5: Lack of a resident doctor and shortage of medical staff.**

Participant 4 who heads an outreach health center remarked that patients demand to see a doctor when they come to the health center because they believe that their ailment can properly be diagnosed only by a doctor and not a nurse, laboratory technician or a local

health administrator. Participant 9 added:

> nurse providers, laboratory technicians, and midwives cannot be a substitute for trained physicians or experts! We cannot even start asking for a resident or visiting doctor because they are very scarce, when we don't even have a primary health care clinic.

Participant 7 added that:

> the rural health care system most often has only a few providers like a midwife, a laboratory technician in a few cases, nurses, and one administrator, often, rural residents are not satisfied, nor are they willing to consult health care providers like midwives, laboratory technician, nurses, and healthcare administrators for any of their cases, but a doctor.

Participant 5 complained:

> what will be the reason for me to go to a rural health care center where there is no doctor, and after waiting for so long to see a nurse, laboratory technician, midwife or local health administrator, I will get a prescription that I am not sure of, and is not in-stock, and then I still have to go out looking for the drugs elsewhere. It is preferable for me to seek the services of a chemist operating a local drug store in my village, or better still consult the services of a herbalist or traditional doctor.

Participants 6 and 9 stated that they do not have any health centers in their village nor would want to use rural healthcare centers located out of their communities because the rural health centers do not have regular doctors on staff, prescribe fake drugs to patients at times, and have little or no equipment, describing rural healthcare centers as

trial-and-error center providers. Participant 4 who is a nurse heading a rural outreach health center stated that it is very challenging to operate a rural primary healthcare center without a doctor, especially if one were to take the emerging healthcare demands of the elderly population and complications emanating from the birth of a child. Participants 7 and 10 assert that most of the tragic deaths that happened after child birth were preventable if a doctor had been on duty.

All the seven residents (100%) from rural communities lamented the lack of clinics within their communities, and stated that the presence of a clinic or more than one clinic per a certain ratio of the population will attract a visiting doctor and subsequently a resident doctor, as well as more qualified nurses, nurse practitioners, midwives, and laboratory technicians. Participant 4 remarked that laboratory technicians, nurses, and midwives can only practice if there was a rural health center or clinic located within or around their community, rather than only looking for greener pasture within metropolitan areas. According to Participants 6 and 9, the experience and skills of laboratory technicians, nurses, and midwives are limited in handling critical cases, “how do I start trusting my healthcare on trial-and-error practices?” Furthermore, Participant 6 and 9 lamented while pointing at a swollen knee and a fractured hip respectively, “perhaps a doctor is what we need first.”

Two participants said that the only primary healthcare center located in their communities lacked medical staff who can do home visits, educate and create awareness on prevention programs of the services that are offered to the rural population (4 and 8). Some rural participants remarked that the rural healthcare system lacks laboratory staff who can conduct basic tests, nurses, midwives, and at times rely on guess work to

diagnose and prescribe drugs (Participants 8 and 9). According to Participants 5, 6, 7, and 10, there are shortages of health care staff everywhere, but they stated that they could not be very specific because they do not have a healthcare facility in their communities to observe if it is true or not.

**Theme 6: Lack of accommodation.** Participants 1, 2, and 3 were comfortable with the accommodation or building infrastructure of the numerous hospitals, clinics, and health centers in the towns around the city of Bamenda; their rural counterparts**,** Participants 4, 5, 6, 7, 8, 9, and 10 stated that there are no buildings in the rural communities that can host a medical clinic. However, some of the building can be rented and renovated to accommodate a clinic for the main time. Participants 5 and 8 acknowledge that the traditional Fons and Chiefs in their respective rural communities have severally offered land on which a clinic or health center can be built. However, they are relying on the government to build these basic primary health care facilities. In most cases, land and some building materials like sand and stones are our communities' contribution towards a rural community clinic, Participant 5 and 8 emphasized.

**Theme 7: Lack of essential drugs:** Some healthcare policy designers, Participants 1 and 3, and Rural Residents 4, 8, and 10 expressed that rural healthcare systems do not have the essential primary healthcare drugs and other healthcare supplies in stock; these shortages limits the ability of healthcare professionals like laboratory technicians, midwives, and nurses from maximizing their expertise in providing either reasonable or quality services to rural residents. According to Participant 9, rural health facilities are hardly stocked with the most needed primary care drugs. Participants 5, 6, and 7 complained that, due to the rural primary healthcare facilities' inability to provide

residents with essential drugs, the healthcare centers expect or require residents to purchase their medicine from local vendors in the community, which exposes them to the possibility of purchasing either adulterated or fake medicines. Participant 4 narrated an incident where a fake aspirin for adults which contained starch instead of the real aspirin medicine was discovered in their community. Three of the four female rural participants stated that aspirin was commonly or often used to treat pain, fever, and inflammation, but since aspirin was not immediately available at the local healthcare clinic, rural residents were required to purchase the medicine from a local drug store in the community. Respondent 6 added that, "Both adults and our children became sicker and sicker from consuming these fake and non-potent medicine, which ended up costing us our money, time, and energy for nothing."

**Accessibility**

**Theme 8: Geographic barriers/isolation.** Respondents Number 1, 2, and 3 reported that they do not experience any isolation or barriers from seeking medical treatment in the city. However, their counterparts, Respondents Number 4, 5, 6, 7, 8, 9, and 10 stated that in the rural areas where they live, residents travel greater distances to access a variety of points where health care delivery is available in urban settings. According to Respondents Number 4 and 8, the only health care facilities located in their community cannot even offer basic services, is often overcrowded, and are very small, thereby forcing resident to travel long distances in search of medical services. These challenges have made some rural residents to turn to traditional methods for treatment. According to Respondents 5, 6, 7, and 10, due to geographic isolation, long distances, extreme weather conditions, environmental and climatic barriers, poor or lack of proper

public transportation, and poor roads network, people who live in rural areas are either limited or prohibited from having access to health care services. Participant number 7 added that the challenges or healthcare disparities encountered by health care providers and patients in remote communities are significantly different from those encountered by providers and patients in urban areas. According to Respondent Number 10, geographical isolation comes with economic barriers, cultural and social contrast, educational deficiencies, either lack or slow recognition by parliamentarians and the isolation of living in rural areas all conspire to impede rural NWR in their struggle to live a normal, healthy life.

**Theme 9: Distance and transportation.** Respondents 1, 2, and 3 who live in the city of Bamenda and work at the regional delegation of public health acknowledge to owning personal cars, and stated that even without their personal cars it could take them an average of 20 minutes to access medical care. Respondents 4 through 10 stated that they travel long distances to access healthcare services, especially when they are seeking for advance care or the services of a specialist. According to them, poor transportation and long distances impose a significant burden on them, since it takes more time, energy, and costs a lot of money to access care. As an example, while Respondent Number 1, 2, and 3 could only pay 200frs CFA to access medical treatment, Respondents Number 5 and 7, will take 3 ½ hours to reach a health care facility at the cost of 2,000frs CFA. Respondents 6, 9 and 10 acknowledge that it will take a car between 4 to 7 hours to reach a healthcare facility at a cost ranging between 3,500frs CFA to 6,000frs CFA. From the fourth to the 10th participants, all stated that the waiting time to take a commercial ride on a bike to the nearest health care facility ranges from 3 to 4 hours on a normal day and

3 to 5 hours on rainy days or at the heart of the harmattan season. According to Respondent Number 6, to make profit and to meet with the cost of maintaining the motor bike, the bike rider has to carry between two to four passengers on a single motor bike at the same time or on a single trip. Participants number 4, 7, 8, 9, and 10 stated that only one earth motor-able road leads to and from their various communities, and that the last time each of these earth roads leading to their communities were rehabilitated by the government ranges from 1985 - 2001. While Respondents number 5 and 6 acknowledge that their communities have one main road and a trail leading in and out of their communities, but that both roads were last rehabilitated in 2000. Furthermore, all the 7 respondents (100%) from rural NWR quickly added that none of the roads are passible, but deplorable; and that is why a motor bike is preferable on these roads than a car. According to all 7 rural respondents, the lack of good roads and reliable transportation is a barrier to care. Urban transportation or the public bus transit system for patients to get to medical appointments seems like a luxury to rural residents, “we don’t ever dream of having the urban transit system constructed in our community any time soon” reported Participant 5, 8, and 10. Respondent number 4 heading an outreach health center acknowledged that so many patients die as a result of the poor road infrastructure before reaching the health center, and “be reminded that we don’t have a mortuary or mock here, and the situation gets worse when we have to refer patients for advanced or critical care in hospitals in a town or city.” Rural communities have more elderly residents and farmers who have chronic healthcare conditions that require several visits to outpatient healthcare facilities, and so, require not only good roads but also a reliable means of transportation said respondent number 10. According to Respondent Number 7, “we have

had pregnant women give birth to their babies prematurely on their way to the health facility as a result of vibration from bad/uneven roads, irrespective of whichever means of transportation is used."

**Accommodation and Acceptability**

**Theme 10: Health insurance status.** According to all 10 respondents (100%), there is no health care insurance scheme in Cameroon yet**.** The health care insurance industry has just been introduced (2016), very chaotic, unregulated, and very ineffective. It is very difficult to come across any company or religious organization offering health insurance, except of a few very unorganized institutions claiming to offer health insurance to individuals and groups. Participant number 3 and 7 noted that individuals who do not have health insurance have reduced access to healthcare services. According to Respondent 1 and 2, quoting from a 2008 report on Health Disparities (A Rural-Urban Chartbook), there is a larger percentage of rural residents who do not have health insurance compared to urban residents. Six of the seven respondents from rural communities did not even know what health insurance means or what it stands for, as compared to their peers living in metropolitan areas. Respondent number 4 who heads an outreach health center, was the only participant from a rural community who understands what health insurance is, but stated that even as a health care provider she does not have health insurance, nor do patients come to the healthcare center with any healthcare insurance. "Even if a patient had proposed to pay our services with a health insurance card, I wouldn't have accepted it because government policy doesn't allow us to." According to participant number 4, the most remote rural residents are the least educated, the least economically empowered, and the least likely to have health insurance coverage.

**Theme 11: Social stigma and privacy issues:** According to Respondents Number 4, 5, 7, and 10, social stigma, especially in rural areas where there is little anonymity and privacy concerns poses a barrier to healthcare access. Participant 6 quoted an example: “the village is very small and the population is scattered here and there, so, almost everybody knows everybody, which is why you don’t want others to know what you or any members of your family might be sick of.” According to Respondent 10, “you don’t want to give out information about your diagnosis that will not be well secured or used by your neighbors or other residents to stigmatize you or to settle a misunderstanding with you.” Respondent 8 and 9 noted that residents are very cautious or have privacy concerns when they or their family members attempt to seek care for issues considered either as a taboo or witchcraft, disgraceful, or a curse by other residents. As an example, participant 4 and 9 remarked that rural residents may be worried about seeking medical treatment for health care issues like fertility, mental health, HIV and AIDS, substance abuse, issues relating to sexual health, unwanted pregnancies, or even common chronic illnesses due to privacy concerns. This does not only act as a barrier to healthcare access, but also provides a clear evidence of the lack of trust in the existing healthcare clinics (4, 7, and 10).

**Theme 12: Poor health literacy.** According to respondent 1 through 10 (100%), lack of public health education is a challenge to rural residents. Most, if not all rural residents lack sufficient educational attainments which can help patients to improve on their ability to understand health care information and directives from healthcare professionals, poses a barrier to accessing healthcare reported participants 5 and 9. Respondents 4, 7, and 10 noted that this is particularly applicable in rural communities,

where lower educational levels of residents and higher incidents of poverty often affect resident's ability to comprehend preventive care. Participant 2 posited that preventive care is likely to impact everybody, irrespective of age, individual or family income, or perceived healthcare status, since the benefits of investing in prevention care can be broadly shared.

**Accommodation**

**Theme 13: Facilities are poorly maintained and lack essential amenities:** Rural residents (100% rural) said that even though 2 of the rural communities in the study had at most one outreach health center, these healthcare centers lack sanitation supplies, electricity and water. Respondent 4 revealed that the outreach health center has no placenta disposal pit nor a site where organic wastes can be emptied. According to Participants 7, 9, and 10, most health centers located in rural areas are not even attractive to rural residents because they are filthy, smell so bad that they become uncomfortable to patients and even some of the people who work there. Participant 6 questioned the seriousness of the government in providing more quality clinics in rural areas:

> a woman under labor is handicapped to carry water from far off locations or to provide and carry a lamp around in the night because of no electricity, especially if labor starts after everyone else is already asleep or in the middle of the night.

In addition, Respondents 4 through 10 reported that some health centers need a lot of renovation or restoration of the dilapidated building infrastructures, new or restored beds, bed nets, and need suitable seats for patients and visitors in the waiting areas. Participant 8 lamented that the lone health center in their community has no mosquito

nets, which is detrimental to newborn babies since they will be exposed to mosquito bites.

Participant 4 who is a health care provider (RN) explained how difficult it is to deliver babies in the night with a kerosene lamp as the only source of light. Participants 1, 3, 5, 7, 8 and 10 described how inconvenient it is for a woman who has just delivered a baby to notify relatives and must wait for a while until water is brought to her by relatives or from her home before she can take a shower, which is the current state of affairs. Participants 7 and 9 asked "How can a healthcare center function without power to refrigerate vaccines." Participants 4 and 6 questioned how a healthcare center can function without water for proper sanitation during and after delivery, nor oxygen or equipment to resuscitate patients. Additionally, Participants 5 and 6 lamented over how rural health centers do not have incubators for premature babies. Participants 4 through 10 concluded by saying that "God is our only source of hope for now."

**Affordability**

**Theme 14: Affordability and excessive cost of care**: With regards to excessive cost of care, Participant 7 shared this story:

> Mrs. [name withheld] gave birth to her baby in a rural primary healthcare facility. Throughout her pregnancy, she frequently visited this rural healthcare center for antenatal services. After delivery of her baby, she was informed by nurses and midwives that the baby had epilepsy. The healthcare center was out of stock of drugs that could manage epilepsy at that time, so the nurse told her as a matter of urgency to go and bring more money so that the healthcare center can buy the medication that will treat the baby's seizures. Unfortunately, the woman could not

> raise any money at that time. The woman was discharged from the healthcare center after 4 days, even though the nurse had informed her how serious the baby's situation was. Five days after returning home, the woman and her husband were still trying to raise the money for the baby's treatment, but the baby past away (died).

While concluding this story, Participant 7 sighed in frustration and asked; "if human life wasn't worth more than money any longer in our society?" In her case, the baby should have been treated first so that the baby's life could be saved, and then after her parents' economic or financial recovery, they could pay the medical bills. Participants 6 and 8 reported that, as a last resort:

> residents employ the services of drug vendors who may sell the same quality of drugs at a cheaper rate or traditional doctors where they can have the power and opportunity to negotiate the cost of treatment, or may prefer to resolve their medical situation in a prayer house.

Participants 5, 7, 9, and 10 complained that the cost of care in a rural community is unfair, given that it is either the same or even more expensive in some cases as compared to that of their urban peers who are closer to and more exposed to several medical privileges. According to the example quoted by Participants 1, 2, 3, and 9, some patients cannot afford the cost of some injections, medications, or laboratory tests. The contrast to orthodox medical practice is that traditional doctors provide affordable services to rural residents when the need arises reported Participants 4 and 8. Participant 10 remarked that providers of orthodox healthcare discredit the traditional healthcare system because its practices are not scientifically proven, due to fear of competition, and

due to rapacity. According to respondent 5, traditional healers on their part recount their relationship with the orthodox primary healthcare system as inappropriate, discouraging, and prejudice.

**Theme 15: Solutions to the challenges faced by rural residents to access medical treatment.** In order to improve access to rural primary healthcare services or resources, the data collected and analyzed so far suggests that potential initiatives, changes, and adjustments will absolutely be necessary to improve upon rural primary healthcare delivery. All participants (100%) recommended that the government can improve upon and facilitate access to quality healthcare services through the following:

- Institutionalize a health insurance scheme for residents of rural communities with highly subsidized medications for infants between 0 – 2 years old, rural residents who cannot afford the cost of care, and the elderly.
- Initiate the construction of new clinics in rural areas for primary health care services and attach outreach or mobile clinics to support the healthcare needs to home bound patients and professionals to educate residents of the services offered by the delegation of public health for the NWR. Mobile clinics have been recognized for being cost -effective in preventing chronic disease, controlling healthcare costs, and reducing health disparities in underserved or remote communities (Chimezie, 2013; Hill et al., 2012; Oriol et al., 2009).
- Rehabilitate the road network linking rural communities to towns and cities where most public health resources or providers are located, like hospitals, physicians, experts, nurses and nurse practitioners.

- Provide each of the clinics with at least an ambulance service to facilitate easy and fast transportation of patients who need advanced and emergency care services to the clinics or hospitals.
- Increase all medical staff retention programs and especially a regular visiting or resident doctor in each clinic or health center to supervise the work of subordinates like nurse practitioners, nurses, midwives, laboratory technicians and to carryout proper diagnoses of infections, prescriptions, and to do referrals to experts.
- Provide each clinic with functional equipment, and regular supply of medications and other necessary medical supplies.

The position of all the 10 participants (100%) is that, without these utilities, amenities, equipment's, and structures put in place, it will continue to be very challenging for the delegation of public health for the NWR to achieve its primary objective of bringing healthcare closer to rural communities, which will translate into poor healthcare quality services offered to rural communities.

**Theme Cluster 2: What are the Funding Policy Requirements for new Clinics in Rural Communities in the NWR of Cameroon?**

Only health care policy designers, planners, and managers working at the regional delegation of public health for the NWR responded or were allowed to respond to research question two. These questions were intentionally designed for this group of participants because of their expertise in health care policy designing, health care policy planning, and healthcare policy management. They were assigned as Participants 1, 2, and 3. While describing their own experience when they attempt to seek medical

treatment in the urban or metropolitan settings, a clear contrast was demonstrated in comparison to those seeking medical treatment in rural areas.

**Accessibility**

**Theme 16: Geographical location of the community/area:** According to participants 1 and 3, the location of rural communities makes it very challenging to serve them with orthodox health care services. However, it is one of the requirements set by the ministry of public health, designating a community as both "rural" and "underserved." Participants 2 and 3 remarked that for any healthcare policy designer to consider any geographical location in the NWR as rural or as a community worthy to benefit from a new community clinic, the following definitions must be applicable:

- Rural Area - Census Bureau designation as "non-urbanized"
- Shortage Area - A government-designated Health Professional Shortage Area, or a state designated medically underserved area or an area designated by the regional delegate of public health and Regional Governor as underserved.
- Remote Area - A regional government designated area as remote and isolated community, located either at a long distance from densely populated arrangements or lacks the type of transportation links that are found in more populated settlements. Participant 1 added that such a geographical location must be situated in a non-urbanized area as defined by the government census bureau within the past/last 3 years: has been designated by regional delegate of public health for the NWR and certified by the regional governor as an area experiencing a shortage of direct healthcare services - an area designated by

the minister of public health as an isolated area and experiencing shortage of personal health services.

**Theme 17: Isolation of the community.** All three participants from the regional delegation of public health (100% urban) acknowledged that any location requirements for the construction of a new community clinic should first be designated by the minister of public health, then the regional delegate of public health for the NWR, and then certified by the Governor of the NWR as rural, as well as a shortage and underserved area. Participants 1, 2, and 3 remarked that this is only in addition to a community which is already situated far out of the metropolitan or urban settlement. According to Participant 3, an isolated area does not have the economic power, nor the civilized status that an urban community has, and it should also be situated quite a distance away from where a lot of services are located. Often, rural residents need to pay a high cost for transportation from their homes, where houses are not too clustered to one another to ride to a town or city located within an urban settlement (Participant 2). As a final remark, Participant 1, 2, and 3 agreed that one of the requirements taken into consideration that authorities find to be very important regarding the funding of a new community clinic depends on how densely populated the settlement is, or if the area has a very deficient transportation road network that is typically located in a non-densely populated area.

**Theme 18: Distance between existing primary healthcare facilities and the envisaged facility.** Participant 2 expressed that, for a new clinic to be offered to a locality, the distance between the new clinic and the existing health care facilities, if any, is very important because the new clinic will need to be centrally located. In addition, Participant 2 further emphasized that, for the sake of social justice, two or more primary

healthcare facilities cannot be in one area while other rural areas do not have the privilege of having one, as that will be very unfair. According to Participants 1 and 3, clinics can heighten the awareness of their position and the services they offer by creatively connecting with their community. Participants 1 and 2 remarked that, whatever approach is considered, the strategy must engage stakeholders in the planning process. In most cases, engaging stakeholders or the community will only help to facilitate the process because they will provide a site within the community for the new clinic. Per Participant 1, it will also provide the opportunity for both the inhabitants and the policy designers to examine the economic strength of the community to determine if they have the capacity to fund additional initiatives within the new clinic like a wellness center or a health education center. According to all three state employees, by calculating the distance between an existing healthcare facility and one that is to be newly constructed, equitable distribution and easy expansion of healthcare access to vulnerable populations can be facilitated, and every less privileged or underserved rural community may be reached.

**Theme 19: Accessibility of the community.** Policy designers often balance several factors to ensure ease of access to every health care facility, and to make sure that the clinic is centrally located to every patient in a community and is also easily accessible from several directions reported Participant 3. Additionally, Participant 1 stated that if their community is made accessible during the dry and rainy season (summer and winter), it could help to mitigate the effect of hash climatic conditions on residents, and patients should still be able to have easy access to clinics either from within or outside of the community. According to participants 1 and 3, accessibility to the community does not only take into consideration where the clinic will be located, but also the projected patient

population growth over time, the hours of operation of the clinic, the health care demand, the availability of staff, and the possible travel options. The proposed travel options include: “public transit systems, pedestrian walking paths, motor vehicle traffic within and entering the community, onsite parking lots, and road orientation”. Participant 2 noted that accessibility to a community clinic encompasses an objective site analysis. “By constructing a new clinic close to a residential neighborhood, policy designers determined that many patients could walk to the clinic from their homes, thus mitigating the need for high-volume parking in a long run” reported Participants 2 and 3.

**Accommodation and Acceptability**

**Theme 20: Feasibility studies/analysis.** Participant 3 stated that carrying out feasibility studies constitutes one of the most significant requirements for the construction of a new community clinic; it helps to establish the realistic parameters, technical specifications, and the cost-based initial assessment for a decision. According to Participant 1, it is very vital for policy designers and mangers considering the establishment of a new rural healthcare clinic to secure the general impact of the new clinic and its significance. They must ensure that the benefits are reasonable enough to outweigh the cost incurred to start the rural healthcare clinic. Participants 2 and 3 noted that it is advisable to look at all the circumstances involved, such as the chain of supply, professionals who will be involved, the number of beneficiaries and their economic power to maintain the sustainability of the new clinic. Participant 1 cited an example of how the:

> government yields to pressure during election time; they offer and construct new community clinics without offering healthcare equipments

> or practitioners in areas that cannot sustain the clinics even with the availability of government subventions which imposes a tax burden on tax payers.

Furthermore, participant 1 added that, this clearly shows why feasibility studies are very essential before any envisaged health care clinic is realized. According to Participants 1, 2, and 3 (100% urban), it is paramount to determine, from a realistic standpoint, if feasibility studies will yield a positive cost benefit analysis move. Participant 3 posited that just like in any business decision, it is significant that the authorities who are charged with making decisions receive accurate communication or information to determine the impact a new rural community clinic will have, and how it will sustain its day to day operations. Participant 2 remarked that "we at the regional level only make feasibility studies, which are approved by the regional delegate and forwarded to the ministry of public health where all policy and final decisions are made." All three state employees stated that a 20% contribution is usually requested from the community in terms of land and building materials (sand and stones) or at least an existing structure that can be rehabilitated to accommodate a new community clinic.

**Theme 21: The total population of the community:** Foremost, it is important to construct a clinic that will be self-sustainable reported participant 2. According to Respondent 1 and 3, to make sure that there is efficiency in the delivery of service, the total population of the area where the envisaged healthcare clinic will be constructed must be fully examined. For example, the ministry of public health has designed a framework that is currently shaping planning for resources, care arrangements, and service delivery, thus ensuring that each person's health needs can be met effectively and

efficiently (Participant 1). By determining populations sizes, the regional delegation of public health for the NWR can initiate more creative and effective strategies for safe, timely, efficient, patient centered care, equitable distribution of health care products, and thus a better understanding of how to achieve better health at both the personal and community levels (Participant1, 2, and 3).

**Theme 22: Healthcare demographics of the rural community:** Participant 1 expressed that a complete needs assessment is very necessary to determine the exact health profile of rural residents and that of the rural community as a whole, to know the type and size of health care professionals and equipments that will be provided to each new facility. There is no need to construct a community clinic which will be less-functional because of the lack of qualified professionals and standard equipment, participant 1 noted. Additionally, Participant 2 stated that in some cases, physicians and some experts may not be available or easily accessible to provide services in newly constructed healthcare facilities. Furthermore, Participant 1 quoted an example:

> if you find out that 60% of those in this rural community are women and children, then you have to start planning for the availability of a gynecologist and a pediatrician or family practitioner as your first choice. Other providers will join the healthcare team over time as the healthcare profile of the community changes, and as the need arises as obtained through continuous evaluations.

According to Participant 2 and 3, demographics will help to accurately project population growth relative to physician availability. “For those who live in the United States, it is easier to understand the most common medical profiles or characteristics of

individuals in a rural area through the Medicaid, Medicare, SSI, SSDI, or SSD systems. Unfortunately, in Cameroon and the NWR in particular, we lack the financial resources and the cooperation to carry out complete needs assessments from patients because of privacy concerns, the lack of patients' comprehension on preventive care, lack of the software and government programs that can enable us to obtain and store the health information of individuals in a synchronized system". The lack of community clinics, and the lack of equipments in existing clinics has created a lack of trust between healthcare professionals and patients living in rural communities (Participant 2). The frequency with which the government compiles and updates the most current and accurate healthcare profile of each community is very slow, very irregular, and done on a case-by-case basis reported participants 1 and 3. According to participant 2, "we are gradually incorporating a computerized data based system into our activities, while also using the paper based system at the same time for new admissions and to update patients' profiles. This is very challenging and time consuming."

**Theme 23: Continuous complete Needs assessment of the community over a period of 5 years.** Policy designers and managers, are required to do quality improvements, evaluations, and assessments in the public health services that will be offered, and that are already being offered to each rural community within the last 5 years. This involves conducting annual programs and community evaluations to establish the growth rate of the population and to update existing healthcare profiles in our data bases, to include the health profiles of newly admitted patients, and new healthcare trends and demographics as a whole reported Participants 1 and 2. Participant 3 added that annual evaluations which are done on very irregular bases due to the lack of resources

have helped them to get the community's most updated health data that can be used in case of an emergency or epidemic, and for use in future public health programs. According to all three respondents (100% urban), "needs assessments" helps health care designers and planners to establish a systematic set of mechanisms that are used to determine healthcare needs, scrutinize their nature, and their actual causes, and to set priorities while maintaining standards for future action. Participants 1, 2, and 3 noted that there will always be scarcity of healthcare resources to meet all human needs; therefore, comprehensive needs assessments are conducted to help program designers, program managers, and program planners to identify the right public health resources for each rural community, depending on the availability, accessibility, accommodation, and the geographical location of each rural community.

**Theme 24: NW regional delegation healthcare professionals excluded from policy and budgetary decisions:** The three state employees who took part in the study (participants 1, 2, and 3) reported that only the Minister of Public Health in Yaounde (the capital of Cameroon) is the principal decision maker on the construction of new rural healthcare clinics, and no one except the prime minister and the president of the republic of Cameroon can override the decisions of the Minister. According to participant 1, "we are just the intermediary between the Minister and the rural community where each new clinic has to be constructed." Participants 1 and 3 remarked that healthcare professionals at state or local government levels do not make nor participate in making any policy decisions. Participant 2 added, "I am here as an obedient civil servant, once we submit our feasibility studies through the regional delegate of public health for the NWR and receive approval from the minister through the regional delegate of public health, we

hand over to the ministry of finance and ministry of public works for the construction of the building; it is only after the construction work is completed that the new facility is handed back to the ministry of public health, again through the regional delegate of public health for the NW". While waiting for the clinic to be constructed, policy designers, planners, and managers begin to assess and gather personnel and the medical equipment that will render the clinic functional reported Participant 3. "As a public servant, I am apolitical, and I am here to serve and not to be served. More to that, I do not want to lose my job by over stepping my job functions" said Participant 2. Participants 1, 2, and 3 expressed that they would love to participate in the policy decision making process, given that they live and work in the NWR and know the terrain very well. Two of the 3 Participants (1 and 2) (66.66%) from the delegation of public health for the NWR reported there is over concentration of power in the hands of the minister of public health regarding policy decisions affecting the regions, which impacts the resolution of important healthcare issues and adversely affects service delivery. Participant 3 revealed that adequate resource allocation, budgeting, and the management of the newly constructed clinics can effectively be achieved through the decentralization of the policy decision making process. Two participants (1 and 2) acknowledged that even though it is very difficult to prove the influence of stakeholders on the decision-making process, there seems to be some form of political influence over the geographical location of some newly envisaged healthcare facilities. Some newly envisaged clinics have been proposed in areas based on the location and convenience to some bureaucrats, government officials, and the higher political class (leaders), while undermining the fact that these facilities may not be centrally positioned within the benefiting community. Because of

discrimination, these clinics are located far away from residents who oppose certain politicians or bureaucrats in office at a particular time.

**Availability and Affordability**

**Theme 25: Availability of funds.** According to Participants 1, 2, and 3, policy designers and managers can do all the feasibility and technical studies they want and plan very well, but if the government does not have the money or partners to help in funding the implementation or construction of the new clinics, all that effort would be in vain, or will have to wait until the funds are available. On the other hand, rural residents who cannot afford the cost of care resort to using the services of traditional doctors, and local drug stores, or postpone, suspend, or avoid care, which in turn increases morbidity and mortality rates (Participants 2 and 3).

**Theme 26: Availability of Staffing.** Participant 2 acknowledged that when the government is budgeting for a new clinic in a rural community, one of the requirements is that they have to consider those who have to work in the new facilities and how much they will be paid (budgeting). Participant 3 added that a thought must be given to the type of resources that will be made available to help a Rural Health Care System to maintain their primary care workforce. Several programs and grant programs help recruit and retain physicians and mid-level practitioners said participant 1. According to Participants 1 and 2, the legislature and some government agencies do not offer any programs like scholarships, or any other incentives for healthcare professionals who are willing to serve in designated rural areas. If such incentives were offered to these professionals for a certain number of years after graduation, it can help to retain health care staff in rural communities. Some of these incentive programs, remarked Participant 2, do not exist or

are very ineffective because most rural areas do not yet have a primary healthcare facility or clinic. No participants made suggestions with regards to the researcher's interpretations of the data; however, they urged that the results be made available to the government to encourage the Government not only to initiate the construction of new healthcare clinics but also to improve on the existing healthcare clinics and health centers in the NWR.

## Evidence of Quality

Creswell (2013) as well as Trochim and Donnelly (2008), note that proof of quality in a qualitative research study is best accounted for in terms of dependability, credibility, transferability, and conformability, and often, how similar or close the outcome of a study reflects the veracity of the facts. Since I conducted a qualitative research study, I measured the quality of this study results by applying the above concepts used in this study. Therefore, the evidence in this study is very realistic and reflective in the results, are confirmable and credible by approximating the truth with regards to the challenges faced by residents of rural communities when they attempt to seek medical treatment and with regards to a funding policy requirement for the construction of new clinics in rural NWR of Cameroon. All the responses are reflective of the participant's perspectives and experiences. The second evidence of both credibility and confirmability of the results of this study is that the participants cross-checked my notes to make sure that they reflect what each participant said or meant to say. No participant made any recommendations with heed to the interpretation of the data collected.

Another evidence of credibility in this study is the result of the prolonged commitment I put in to legitimately collect data from the participants. This was done by developing a rapport with the participants to earn their trust so that they can sincerely describe and share their experiences with the researcher. For instance, one participant described a pregnant woman who started bleeding profusely at home and could not be transported to the hospital that night on time and unfortunately, she died because of no ambulance and poor road network between the rural community and hospitals located in metropolitan or urban areas. I believe that by sharing such intimate and painful experiences suggests that there was a good rapport between the researcher and participants.

Another evidence of credibility in this research is the outcome of the triangulation of data from two different sources. First, the data which the researcher collected from policy designers, planners, and managers at the regional delegation of public health for the NWR also represented individuals living in an urban settlement, and secondly, the data collected from each rural resident represented each of the seven divisions that make up the NWR. The two groups unanimously agreed on the conditions and challenges faced when rural residents attempt to seek medical treatment in the NWR; indicating that the data I collected were valid.

## Summary

All the data collected during this study answered my research questions 1 and 2. For RQ1, participants could determine that there are several challenges that individuals who live in rural communities' face when they attempt to seek medical treatment. RQ2 was also answered—Respondents 1, 2, and 3 stated that even though there are several

considerations and requirements to fund the construction of a new rural community clinic, there was no funding policy designed at the level of the delegation of public health for the NWR for this purpose. Participants 1, 2, and 3 stated that policy designing and policy decisions are made at the ministry of public health located in Yaounde. The delegation of public health for the NWR only serves as the middle man between the ministry of public health and the community where the new clinic is envisaged. While the delegation of public health is responsible for the feasibility and technical studies or specifications of a new community clinic, the ministry of public health designs and applies the final policy decision whether a clinic is suitable or not in each rural community located in the region. The data shows no direct correlation or relationship between policy designing, policy planning, or public health policy decisions and the delegation of public health for the NWR, but for formalizing decision implementation.

Chapter 5 will restate the purpose of this research study and then summarize the key findings resulting from the data collected. So far, the results of this study confirm the findings exploited from the literature review, which will be thoroughly discussed in Chapter 5. Also, recommendations for further research will be stated, followed by a description of the impact of this study on positive social change.

# Chapter 5: Conclusion and Recommendations

## Introduction

The purposes of this phenomenological study were two folds. The first was to investigate the challenges that residents of rural communities in the NWR of Cameroon face when they attempt to seek medical treatment. The second purpose was to examine if there are any identifiable health care funding policy requirements for the construction of new community clinics at the regional delegation of public health for the NWR. However, intrinsic in every investigation, and besides the stated purpose of this study, was the unstated reason of contributing to the overall body of knowledge in the field. Using a phenomenological research approach, I explored both RQs and allowed the research participants to clearly and freely report their experiences.

I interviewed 10 participants in this study. I chose the location of the rural NWR of Cameroon for this study because it was considered one of the most underdeveloped regions in Cameroon by the ministry of territorial administration, with so many enclaved and isolated communities that are either totally or partially cut off from urban or metropolitan areas by poor or no motorable road network connections, exhibits a lack of or limited access to essential amenities and healthcare services, and is more exposed to an increase in mortality and morbidity rates (Department of Health & Human Services [DHHS], 2014; RHHb, 2014; Umebau, 2008; WHO, 2013).

To gather participants' perspectives for this study, I face-to-face interviewed individuals as the data-collection instrument. The data collected were analyzed using Colaizzi's (1978) seven-step method for coding data. The two main questions for this study were coded as Theme Clusters 1 and 2, while participants' responses were coded as

Theme 1, Theme 2, through Theme 26. It is through this approach that I provided a thorough analysis of the participants' experiences in rural as compared to urban settlements by exploring the challenges related to healthcare access in rural NWR.

In this study, I focused on two main RQs, with RQ1 focusing on the challenges that individuals who live in rural communities face when they attempt to seek medical treatment, and with RQ2 whether there is a funding policy requirement regarding the construction of new community clinics at the regional delegation of public health for the NWR. I undertook this study to ascertain rural residents' perceptions on the availability of healthcare services and the effectiveness of the rural healthcare delivery system. In Chapter 5, I will summarize the results that I previously presented in Chapter 4 and provide interpretations of the essential findings as they relate to identified theme clusters and themes in Chapter 4, followed by a summary of results, the limitations, and my recommendations for further study. My interpretation of the results will be explained under Theme clusters 1 and 2.

## Summary of Key Findings

I determined at the following essential results through this study:

- Although there is lack of clinics or healthcare centers in the rural communities, the primary healthcare system in urban areas in the NWR of Cameroon is mostly focused on disease prevention and health education, excluding funding for new clinics in rural areas. (Theme Cluster 1: RQ1)
- Rural respondents (100%) stated that residents of rural communities and the entire rural primary healthcare system is faced with many challenges such as inadequate or no resident doctors and specialists (physicians, specialists, and

nurse practitioners); a shortage of primary healthcare providers like nurses, midwives, laboratory technicians, drugs, and supplies; lack of basic equipment and facility amenities; poor facility maintenance; and inadequate funding for programs and new clinics. (Theme Cluster 1: RQ1)

- According to 71% of the rural participants, geographical isolation comes with economic barriers, cultural and social contrast, educational deficiencies, lack of or slow recognition by parliamentarians, and the isolation of living in rural areas, which all conspire to impede rural Northwesterners in their struggle to live a normal and healthy life. (Theme Cluster 1: RQ1)
- Ninety percent of the participants proposed that having doctors and drugs on site and providing free and subsidized healthcare amongst other solutions would improve rural residents' access to healthcare services. (Theme Cluster 1: RQ1)
- Of the rural participants, 85.8% acknowledge that the lack of ambulances and the poor transportation system in rural areas has created a great barrier between rural residents and access to primary healthcare in urban or metropolitan locations. The absence of a reliable means of transportation hinders access to health care and the ability of rural primary health care facilities to respond to emergency situations. (Theme Cluster 1: RQ1)
- Most rural residents lack sufficient educational attainments necessary to improve a patient's ability to understand the health care information and directives they are receiving from their healthcare professionals, which places a barrier to accessing healthcare, especially where lower educational level of

residents and higher incidents of poverty often affect the residents' ability to comprehend preventive care (RHIHub, 2016). (Theme Cluster 1: RQ1).

- One hundred percent of the rural participants expressed that access to care is limited to them because of the excessive cost of care in modern hospitals and healthcare centers, majority of which are located in metropolitan areas. Over half (57%) of the rural residents continue to trust and use the services of traditional doctors because of the affordability, accommodation issues, availability, acceptability, and accessibility of the services they offer in rural areas of the NWR. (Theme Cluster 1: RQ1)
- One hundred percent of the policy designers and managers (Participants 1, 2, and 3) stated that policy decisions are made at the Ministry of Public Health in Yaounde. The delegation of public health for the NWR only serves as the middle man between the ministry of public health and the community where the new clinic is envisaged. While the delegation of public health is responsible for the feasibility and technical studies or specifications of a new community clinic, the Ministry of Public Health allocates the budget and designs and applies the final policy decision whether a clinic is suitable or not in each rural community in the region. (Theme Cluster 2: RQ2)
- Results showed that 100% of the policy designer and manager participants interviewed at the regional delegation of public health for the NWR used very common and indistinguishable methods, requirements, and analysis in making a decision to be submitted in favor of a new envisaged community clinic in a rural area in the region. While there were several steps taken by the policy

designers and policy managers before recommending the construction of a new rural community clinic in a particular location, the overall similarity in their decision was sufficient for analyzing a problem. (Theme Cluster 2: RQ2)

- Participants 1, 2, and 3 at the regional delegation of public health for the NWR acknowledged that the following funding policy requirements are taken into consideration before a community clinic is planned for any rural community: the geographical location of the community, how isolated the community is, feasibility studies and analysis must be carried out in the community, the total population of the community, the distance between existing primary healthcare facilities and the envisaged facility, accessibility to and from the community, healthcare demographics/profile of the residents in the rural community, availability of staffing, the availability of funds to realize the construction of a new clinic, and evidence of a continuous complete needs assessment of the rural area carried out within the last 5 years. (Theme Cluster 2: RQ2)
- The research results showed that 100% of the NWR's policy designer and manager participants at the regional delegation of public health were excluded from policy and budgetary decision making. Two participants (66%) from the delegation reported that only the minister of public health in Yaounde (the capital of Cameroon) is the principal decision maker regarding the construction of new rural healthcare clinics, and no one except the prime minister and president of the Republic of Cameroon can override the decisions of the minister. Policy designers and managers at the regional delegation only

> serve as the intermediary between the minister of public health and the rural community where each new clinic has to be constructed. All three policy designer and manager participants (100%) remarked that healthcare professionals at state or local government level do not make nor participate in making any policy decisions but implement both decisions and policies designed at the Ministry of Public Health. (Theme Cluster 2: RQ2)

## Conceptual/Theoretical Interpretation of Findings

Of the seven rural participants, 100% acknowledged that the following challenges contributed to their lack of access to medical treatment in rural communities: lack of rural primary healthcare facilities; no resident doctors and specialists; shortage of primary healthcare providers like nurses, midwives, laboratory technicians, drugs, and supplies; educational deficiencies; lack of basic equipment and facility amenities; economic and financial barriers; poor facility maintenance; inadequate funding for programs; geographical isolation; cultural and social contrast; either lack of or slow recognition by the legislature; lack of healthcare insurance; and free or no subsidized healthcare benefits as that of their counterparts in urban or metropolitan areas. Therefore, Themes 1 through 15 clearly indicated that the absence of a community clinic and shortage of professional healthcare staff in rural communities are a serious setback for residents of rural areas to access the healthcare services they need (see Fan & Habibov, 2009). Eighty-five point eight percent of the rural participants acknowledge that the lack of ambulances, the poor transportation system and impassable road network in rural areas has created a great barrier for rural residents to access primary healthcare in urban or metropolitan areas.

The study results show that 100% of the health policy designers and managers at the delegation of health for the NWR are in favor of the current funding health policy requirements designed as a blue print for rural communities to qualify and to benefit from the construction of new community clinics in rural areas. Furthermore, since both the total results (50%) of the total number of respondents and 5 out of 7 participants from rural communities (71% rural) acknowledged that their communities do not have a health center or community clinic where rural residents can seek medical treatment, this shows that rural communities either do not have or lack sufficient number of reliable, furnished, or resourced community clinics to carter for the healthcare needs of the rural population and subsequently lack of implementation.

Sixty-six percent of the health policy designers, remarked that decentralizing the healthcare policy decision making process, where the delegate of public health for the NWR and his/her subordinates are granted the authority to make some of the health policy decisions at the regional level, will facilitate access to public health services within rural communities in the NWR. This will also save time, cost, and the energy used in transmitting or transferring documents in the process. According to the Conceptual and Theoretical framework for this study, Wright's (1976) and Coleman (1960) have demonstrated that the decentralization of the decision-making process is very prudent in providing logical decisions that will have a positive health impact and will provide the greatest benefit to rural residents. The centralization of power in the hands of the minister of public health and his subordinates over the years has created a systemic problem which is being transferred from on year into another (reported Participants 1, 2, and 3). Therefore, Wright's conceptual framework can be highlighted and invoked in order to

initiate a decentralization process and adjustments to the existing funding policy in favor of new rural community clinics.

The study participants (80%) of the total number of respondents reported that because of the many challenges involved and faced when rural residents attempt to seek medical treatment in rural areas, rural residents have resorted to the use of the services of traditional doctors and herbalists against their will. This is because rural residents do not have alternative choices to turn to at this time. Additionally, 71 % of the rural participants noted that they can negotiate the cost of care with traditional doctors or herbalist compared to healthcare centers and clinics where the cost of care is fixed or nonnegotiable. It is for the afore mentioned reasons that participants posited that this phenomenology is influenced by the unaffordability of services, the lack of accommodation, the unacceptability, and the inaccessibility of healthcare centers, clinics, and any form of modern or Westernized medical practices within or even outside of their communities.

## Limitations of the Study

I am limited to a preliminary and contemporary study into the challenges faced by seven participants regarding rural access to primary healthcare in the NWR, as well as the contribution and analysis of the requirement for a decision making process regarding a funding policy for the construction of new community clinics in rural NWR experienced by three policy designers, planners, or managers (state employees) constituting a representative sample from the regional delegation of public health for the NWR. The policy designers, planners, and managers who participated in this study were not required to know all public policy decision making requirements. For example, a policy designer,

planner, or manager at the delegation of public health could use both, or either the cost benefit analysis or the group decision support system approach to make a decision. The intent of the study was to determine if there is a funding policy and policy requirement at the delegation of public health for the NWR use in making a policy decision, and not the frequency with which decisions are made. However, this research study may have exhausted most, but not all perceptions of residents in rural communities nor those of the policy designers, planners, and managers who took part in the study.

Even though the participants did not hesitate to participate as earlier indicated, I encountered challenges due to poor road network in reaching suburban communities. Since I carried out my study during the Harmattan season, there was a lot of pollution in the air. The heat and pollution in the backdrop of overloaded public transportation vehicles which did not have air conditioners in them made the journey very exhausting. In some cases, I hired the services of bike riders to transport me or to facilitate my effort to reach some of the participants in the most remote rural communities which did not have roads, made the journeys very challenging for me. Additionally, since most of the participants interviewed from the rural communities had less than a high school diploma or no formal education, their low English language competencies imposed a language barrier in obtaining information from them. However, all the participants were able to communicate effectively in broken English, which happen to be a language/dialect I understand and master very well. One thing that I wish I had the opportunity to do was to interview more people as it would be the case in a mixed study.

## Implications

According to 80% of the participants, bureaucrats and political appointees have the egocentric interests in local government projects, and thus intrude into the objectives and delivery of primary healthcare services. Majority of the 10 participants (70%) expressed that frequent changes in local leadership makes the positions of local leaders uncertain; this in turn makes them to indulge in mal-practices by either discriminating against other communities from being offered new community clinics over their own communities, or by enriching themselves and their political god-fathers who might have positively influenced their political careers. One participant (1) reported that because of tied decentralization, health designers, planners, and managers at the regional and local government levels are not included in the decision-making process regarding budgeting issues and the allocation of funds for the construction of new community clinics. Another participant (3) observed that some political leaders at the national level influence decisions at the local government level, precipitating management within both the ministry and the regional delegation of public health to compromise essential services such as primary healthcare in rural areas. Six rural residents (86% rural) proposed that corruption among authorities in power has led to misplaced community priorities regarding the management of funds allocated for the construction of new community clinics.

This research scrutinized the literature to ascertain if there was a gap in the literature. Although the gap in the literature clearly identified that public health funding policy decisions are made both at the national, state, and local government levels, the research results have shown the contrary. The research results show that 100% (3) of the

policy designers expressed that all healthcare policy decisions are made at the national level (Ministry of Public Health). Even though most of the requirements are to be met at the regional level, these requirements only help policy designers, planners, and managers at the regional level to carryout feasibility and technical studies, and then forward them to the ministry of public health for a final funding policy decision to be made (Participants 1, 2, and 3). Hence, the regional delegation of public health for the NWR is only an intermediary between the ministry of public health and the community envisaged for the construction of a new rural community clinic. However, the regional delegation of public health implements the final policy decision made at the Ministry of Public Health (national level) regarding the funding of new community clinics. Therefore, in conformity with the literature review, no public funding policy decision is applicable to all situations. Even though all funding policy decisions have similar or common characteristics, every circumstance and policy issue is very unique. The lack of or insufficiency in the number of community clinics in rural NWR, over half (57% rural) of the participants residing in rural communities have resorted to using the unhygienic and unproven scientific healthcare services offered by local traditional doctors, hence exposing rural residents to increased mortality and morbidity rates, and to quack pharmacists selling fake and nonpotent medicine in drug stores.

An implication and an underlining factor to the shortage of health care professionals in rural NWR is that there has been a steady increase of underemployment of healthcare providers like nurses, nurse aids, midwives, and laboratory technicians, graduating from the several advanced schools of health sciences over the last 10 years, except for the services of physicians and specialists which are still in very high demand

(Talla, 2014; DeLancey, Mbuh, & Delancey, 2010; and Nwaimah, 2008). This is not to suggest that there are no shortages of providers in this region, but to emphasize that these shortages are on a slow but very steady decrease over the last 10 years due to several higher institutions of learning graduating students whose concentrations are either in public health or medicine. Even though there is a steady increase in the numbers of nurses, midwives, pharmacists, and laboratory technicians, graduating from several advanced schools of health sciences over the last 10 years within the NWR, there are no healthcare facilities in rural areas, or at least community clinics where these graduates can practice.

## Implications for Positive Social Change

I was precipitated to carry out this research because of the necessity to recognize the unique healthcare access barriers and challenges in the NWR and to uncover the method or technic to solve these barriers or challenges. By diagnosing the concerns impacting rural residents' access to healthcare, this will help enlighten and guide the government bureaucrats at all levels, stakeholders, and local leadership regarding the necessity to:

- provide the government of Cameroon, health care policy designers, planners, and funding institutions with evidence of the impact which the lack of a funding policy for new clinics has on the health of rural communities in the NWR of Cameroon;
- decentralize the funding policy decision making process, so as to grant the regional delegation of public health for the NWR the ability to make some of the healthcare funding policy decision at the regional level, as well as

encourage community participation in the healthcare decision-making process, regarding the implementation and delivery of healthcare services;

- eliminate barriers and challenges faced by rural residents when they attempt to seek access to healthcare services in rural communities and educate rural residents on primary healthcare services and healthcare programs according to their healthcare profiles or needs;
- enhance individuals' and the communities' ability to access treatment and to meet sustainable public health challenges;
- empower communities and individuals in addressing social health inequalities, by providing evidence based enhancement strategies to address the need for more clinics;
- provide accessible medical care and relieve suffering, and bring healing and hope to the less privileged and the vulnerable in rural communities;
- improve standards of living from saving energy, time, and money that would have otherwise been spent on the cost of obtaining treatment in distant locations under difficult circumstances;
- reduce the unemployment rate of the medical/public health graduates from the so many medical and public health institutions of learning in the NWR of Cameroon, considered to be an underlying factor for this study; and
- expand on a bottom-to-top prototype method of a primary healthcare delivery system by maximizing the use of available healthcare resources that fulfills the pressing needs of the rural inhabitants of the NWR.

This study can contribute to the body of knowledge if policy makers can make the right and timely decisions to optimize the health of rural communities living in the NWR. At a policy level, the outcome from this research shows that the issues emanating from the lack of healthcare access in rural areas obtained from the lived experiences of rural residents of the NWR, who are directly influenced or impacted by the requirements and provisions of rural healthcare funding policies. The outcome of this research also highlighted the deficiencies that hinder the capability of the primary healthcare system to provide effective healthcare delivery. It will also provide regional healthcare policy designers, planners, managers, healthcare providers, and rural residents the opportunity to pursue the type of change that will enhance access to rural healthcare delivery. However, the findings from this study directs the attention of policy designers, planners, and managers in the NWR to reevaluate access and the capacity of the primary healthcare system within the context of accessibility, availability, affordability, acceptability, accommodation, and functionality against any discriminatory practices. I will disseminate the final results of this research through academic conference presentations, appropriate journals, stakeholders, and both regional and local delegations of public health, but will also encourage and recommend community leaders, pastors, traditional healers, healthcare administrators, nurses, midwives, and rural residents to share the result of this study wherever and whenever necessary, either in person, paper copy, by email or by phone.

## Recommendations for Action

Immediate attention should not only be focused on the policy requirements being use by policy designers, planners, and managers at the regional level to gather data that is

sent to the Ministry of Public Health for a funding policy decision, but also on the decentralization of authority that will empower funding policy decisions making at the regional delegations of public health for the NWR, to ensure accountability. Funding policy planning and evaluation decisions should be appraised by a public health committee which constitute of representatives from the Ministry of Public Health, health policy designers, health policy planners, and health policy managers at the regional level, stakeholders from each community where a healthcare clinic is envisaged, and religious/humanitarian organizations, many of which already support public health promotion initiatives, to make certain that policies and programs are effective and geared towards the needs of rural communities. This type of a policy structure will offer a better oversight, while strengthening the equitable distribution of available healthcare resources, and that will take into consideration the unanimous contribution of members for more accountability.

The second action is to construct community clinics in rural areas that will cater for the healthcare needs of rural residents and decrease, if not eliminate the mortality and morbidity rates resulting either from fake drugs, delays, accidents, poor or impassable road network linking the rural areas to community clinics and to hospitals situated in metropolitan areas. This will also enable rural residents to save money that would otherwise have been used to seek medical care in urban areas; hence raising the standards of living and increasing the residents' affordability power to sustain a community clinic in a rural area.

Thirdly, employ a resident or visiting team of healthcare professionals, especially medical doctors, or physician assistants or nurse practitioners, to work at these primary

healthcare clinics. The results of this study indicate that only 2 of the 7 rural communities which participated in this study had health centers, and neither one had a visiting or a resident doctor. This implies that many rural inhabitants do not use the services offered by these two healthcare centers because of the absence of a physician. If made available, a physician could schedule visits to outreach clinics or healthcare centers. Such a mobile clinic should be capable to carter for emergent and emergency cases that may be observed during and after the visit. Additionally, healthcare professionals should use home visitations as an opportunity to create awareness on the available healthcare resources and programs offered by the healthcare system, and carryout both healthcare education and community health promotion. Alternatively, physician assistants and nurse practitioners from state universities can be scheduled to do their externships and clinical rotations in these rural community clinics.

Fourthly, the government should rehabilitate or construct new roads within rural communities that will link rural areas and metropolitan areas, so that during emergencies, patients could easily be transported at a lower cost to clinics located within their communities or in urban areas on time. This will also facilitate rural residents' ability to seek the services of an expert or receive advanced medical attention in hospitals located in urban areas. Furthermore, a better working relationship between healthcare professionals in urban and rural areas will be created, and residents will be able to utilize the potentials offered by the rural primary healthcare system. Un-enclaving a community by providing good roads will promote effective communication and exchange of ideas and understanding among physicians and healthcare professionals, and offer new opportunities for professional training and professional advancement. The WHO (2009)

note that, primary healthcare policies should be designed in such a way that they facilitate and encourage collaboration between physicians, nurses, midwives, and laboratory technicians, so that as a team they can respond to the pressing healthcare needs of the population.

The fifth recommendation is that community clinics should be constructed in rural areas and should be provided with ambulances, more accommodation, water, power for daily operations and to refrigerate vaccines, laboratories, pharmacies, basic equipment, medical supplies, drugs, and mosquito nets to prevent malaria. Oxygen tanks and incubators for premature babies should also be available, as well as clean and well-maintained facilities. A good transportation system should be provided to facilitate movement for easy transportation of patients to the clinics, but most especially serious cases to experts for advanced treatment, most of whom practice in the metropolitan areas.

The government should subsidize care and offer some form of health insurance to those who are suffering from preexisting conditions inclusively and to the most vulnerable members of the rural community, so that, cases which need advanced care will be treated on time based on health insurance and not entirely an out of pocket service, to save lives. To achieve this goal, the national government, through the ministry of public health, can allocate a certain percent of its budget to subsidize health insurance. Meanwhile, the regional government can also institutionalize a tax on all taxable adults in the community to support its rural health program (RHP).

## Recommendations for Further Research

Additional a mixed research study should be designed to thoroughly evaluate the challenges faced by rural communities with regards to delivery and access to primary

healthcare in the NWR, as well as a community-feedback protocol that will be designed to share anxieties and suggestions with the regional government in order to guide the direction for improvement of the rural primary healthcare delivery system in the NWR. Additional studies should also be conducted to determine how the decentralization of authority to make healthcare funding policy decisions by the ministry of public health can empower the regional delegate and delegation of public health for the NWR (Which can even be replicated in rural communities throughout the whole country).

## Conclusion

The results of this study revealed that several barriers limited rural residents' ability to access medical treatment in rural settings due to lack of or insufficiency in the number of primary healthcare clinics within their communities. Given the over centralization of power in the hands of the minister of public health about the final funding policy decision making for the NWR, regional healthcare policy designers and managers are limited in their authority to make funding policy decisions, but make the day to day operational decisions. They use feasibility studies to identify and prioritize the most pressing needs of each rural community and then use regulatory requirements to gather information that is forwarded to the ministry of public health for the board in charge of funding policy decisions to make the final decision.

For many public health policy professionals at the regional level, the over centralization of the policy decision making process at the ministry of public health weighs on their responsibilities to make healthcare funding policy decisions. With the continuous decrease in healthcare funding and tighter restrictions on decision making and how the available funding for new community clinics can be spent, many healthcare

policy designers and managers are making the difficult choices on how to prioritize available options to decrease the challenges that rural residents face when they attempt to see medical treatment in rural areas.

The biggest message shared by both the rural participants and regional health policy designers and managers during the interviews was uncertainty; the uncertainty about the future of rural communities without a primary care clinic. The frequency with which health policy designers identified the lack of the authority to make healthcare funding decisions at the regional level was identified as another disturbing key issue. Following the recommendations made to decentralize the decision making process on the funding policy for new community clinics to the regional level, and introducing government subsidized care could help to ameliorate the challenges faced by rural residents when seeking medical treatment.

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Appendix A: Interview Questionnaire

Directions: Please answer the following questions to the best of your knowledge. Feel free to ask questions and to expand on the questions asked. Please direct questions to Chenwi Ngwa, PhD student at Walden University at chenwi.ngwa@waldenu.edu. All survey responses are confidential, with results reported only in aggregate form. No personal information you submit will be used for other purposes or otherwise. Thank you & or your institution for participating. Return of completed questionnaires as soon as possible will be highly appreciated.

Name:

_____

Address:_____

_____City: _____ Region/State:

_____ Educational Level_____

Facility Name _____ Title:

_____ Sex _____ Marital Status

_____ Number of Children _____ Respondent No_____ Phone:

_____ Email:

_____

**Section I: All Participants Should Answer Questions 1-20**

**1**. Please state the type of community environment where you currently live, for example, rural, urban, division or region?

**2.** Accurately describe the organization and facility that most closely fit the setting where you are currently employed?

**3.** State the number of hospitals, health centers or clinics in your community?

**4.** What are the most common difficulties that prevent you from reaching a hospital or clinic when seeking medical treatment?

**5.** What is the type, nature and dominant means of transportation in and out of your community, as well as to the closest healthcare facility or clinic from where you live?

**6.** How many times have you been sick in 2016, and how many times where you able to seek medical treatment in a health care facility like hospital, clinic or health center?

**7.** Where do you place your priority when you are sick: on traditional medicine (herbalist) or on modern revolutionized medical facilities, practices, and healthcare professionals?

**8.** Do you face the same set of challenges every time you attempt to seek medical care in your community?

**9.** How much time does it take you to get to the closest hospital or clinic from where you live?

**10.** How much does it cost you to get to the closest health care facility from where you live?

**11.** Do you believe that there is a lack of health care facilities or clinics in your community and how does this impact your health and that of your community as a whole?

**12.** Do you know of any new health facilities under construction or being planned for construction in your community? If yes, by who or which organization?

**13.** Describe by quantifying the average number of people who are always in line ahead of you also seeking medical treatment at the closest clinic from where you live?

**14.** Do you have a public health guidance manual on what to do, how to do it, or when to do it, when you fall sick?

**15.** Do you have any form of Health Insurance scheme that takes care of your medical bills in part or in full, whenever you receive any form of care from a medical facility?

**16.** Have you received any form of public health education from workshops, family members, school, and seminars on how to access medical treatment when you fall sick?

**17.** What would you say are the NW Regional delegation of public health's top two important activities in your community? 1….., 2……

**18.** What would you say are the state public health agency's top two effective services in your area? 1……, 2……

**19.** Do you know of any health services that the public health department offers to urban/metropolitan areas that are not available in the rural community where you live?

**20.** What solutions do you propose/suggest to address the challenges being faced in accessing healthcare in your community?

**Section II: Answer All Questions**

**Only for Policy Designers, Planners, & Managers (State Employees)**

**21.** Are you an appointee, an elected official or a regular applicant who was hired to your position?

**22.** Does the way you got employed influence your decision making process regarding the equitable distribution of funding for the construction of new rural community clinics?

**23.** If yes to question 24, how does how you got the job influence your decision making process.

**24.** How long have you been working at your position?

**25.** How many clinics has your department constructed in rural areas in the NWR within the last 5 years?

**26.** Do you take into consideration the cost benefit analysis (CBA) and or the group decision support systems (GDSS) when making a decision on where a rural community clinic should be constructed?

**27.** What are the health policy challenges that your department is facing regarding the construction of new clinics in rural communities?

**28.** Are there any policy requirements on how to prioritize rural communities that are in most need of new community clinics?

**29.** Are there any other nongovernmental organizations that influence the policies in your department regarding the construction of new clinics in rural communities? How

**30.** Have funding sources for the construction of new primary health care facilities remained stable, increased, decreased or other, explain?

**31.** Approximately, what percentage of your overall capital budget is allocated for the construction of new clinics? - Full fiscal year (FY) ending in:

2016 (budgeted) _____% (actual) _____% 2015 (budgeted) _____% (actual) _____%

2014 (budgeted) _____% (actual) _____%

**32.** What factors have impacted your department's ability and the services that your delegation traditionally provides to rural areas/communities?

**33.** According to policy requirements, would you say the number of primary healthcare facilities in rural NWR is an accurate reflection of what each community deserve or should have?

**34.** Are there health services that the public health department offers to urban/metropolitan areas that are not available in rural communities?

**35.** Are there current pressing healthcare services that current policies do not allow your department to offer, but you feel could have a great impact on rural communities?

**Thank you for your participation. May I contact you by phone regarding the results of this interview? Yes, or No. Again, all responses are confidential, with results reported only in aggregate form**

Appendix B: Participant's Request Letter

Request for Participation in a PhD Dissertation Study

Participants Name &
Address_____
_____

_____Dear _____

The researcher: Chenwi Ngwa is a PhD student in Public Policy and Administration at Walden University carrying out a study as a requirement for my dissertation study.

The purpose of this phenomenological study are twofold; First, to determine the challenges that residents of rural communities face when they attempt to seek medical treatment and secondly to evaluate if there is/are any policy requirements in place to fund the construction of new community clinics at the department of public health for the NWR of Cameroon. I will like to request for your assistance in completing my research study; by you granting me an in person or a telephone interview. The interview will be scheduled at a time that will be suitable for you and should last approximately 55 minutes.

Herein, is a copy of the interview questions for your review, as well as a Consent Form for you to complete, should you consider the researchers request for an interviewed. Should you prefer a telephone interview, over a face-to-face interview, then you will have to complete the consent form and either return it in person or emailed it to the researcher chenwi.ngwa@waldenu.edu before our scheduled telephone interview.

The interview constitutes 35 questions. However, you may be required to expand on some of your answers if need be. I selected you for this interview because I consider

you an important informant from whom the most reliable information can be obtained, either in the capacity of a resident in a rural community selected for the study or as an employee from the NWR department of public health working under the division of policy designing, planning and or policy management.

Be reminded that your participation is voluntary, while your identity and the information obtained during the interview will be confidential and only reported in aggregate form. A code number will be allocated to your name and all information collected from you will be reported using this code to protect your identity.

If you accept my invitation to participate in this study, please contact me by e-mail: chenwi.ngwa@waldenu.edu or by telephone: XXXXXXXX. I will contact you to confirm your willingness to be interviewed voluntarily, so that both of us can set up a time convenient for either a face-to-face interview or a telephone interview.

Thank you very much for your time.

Sincerely,

Chenwi M. Ngwa

## Appendix C: Participant E-Mail Reminder

### Request/Reminder for Participation in a PhD Dissertation Study

Dear _____

The researcher: Chenwi Ngwa is a PhD student in Public Policy and Administration at Walden University carrying out a study as a requirement for my dissertation study. The purpose of this phenomenological study are twofold; First, to determine the challenges that residents of rural communities face when they attempt to seek medical treatment and secondly to evaluate if there is a policy in place to fund the construction of new community clinics at the department of public health for the NWR of Cameroon and what the requirements for such a policy are. I will like to request for your assistance in completing my research study; by you granting me an in person or a telephone interview. The interview will be scheduled at a time that will be suitable for you and should last approximately 55 minutes.

Herein, is a copy of the interview questions for your review, as well as a Consent Form for you to complete, should you consider the researchers request for an interviewed. Should you prefer a telephone interview, over a face-to-face interview, then you will have to complete the consent form and then emailed it to the researcher: chenwi.ngwa@waldenu.edu before our scheduled telephone interview.

The interview constitutes 35 questions. However, you may be required to expand on some of your answers if need be. I selected you for this interview because I consider you an important informant from whom the most reliable information can be obtained, either in the capacity of a resident in a rural community selected for the study or as an

employee from the NWR department of public health working under the division of policy planning and policy management.

Be reminded that your participation is voluntary, while your identity and the information obtained during the interview will be confidential and only reported in aggregate form. A code number will be allocated to your name and all information collected from you will be reported using this code to protect your identity.

If you accept my invitation to participate in this study, please contact me by e-mail: chenwi.ngwa@waldenu.edu or by telephone: XXXXXXXX. I will contact you to confirm your willingness to be interviewed voluntarily, so that both of us can set up a place and time in a community hall setting convenient for either a face-to-face interview or if preferable for you a telephone interview.

Thank you very much for your time.

Sincerely,

Chenwi M. Ngwa

Appendix D: Letter of Corporation from the Regional Delegate of Public Health for the NWR

REPUBLIQUE DU CAMEROUN

*Paix - Travail - Patrie*

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MINISTERE DE LA SANTE PUBLIQUE

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DELEGATION REGIONALE DU NORD OUEST

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Tel: 233 36 11 04

: 233363289

N° --1-2-9-RA/NWR/RDPH/

REPUBLIC OF CAMEROON

*Peace - Work - Fatherland*

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MINISTRY OF PUBLIC HEALTH

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REGIONAL DELEGATION FOR THE NORTH WEST

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BAMENDA, the 31 MAI 2016

THE REGIONAL DELEGATE

Le DéléguéRégional

TO WHOM IT MAY CONCERN

**AUTHORIZATION TO CARRYOUT RESEARCH**

**CHENWI MBUOKO NGWA**, PhD Scholar in the Health Policy and Administration program of the Walden University, U.S.A, is authorized to carryout research in the North West Region title " **investigating funding policies for new clinics in Rural North West Region, Cameroon"** .This will begin from the 31st of May 2016. Make available a copy of your final document to the Regional Delegation of Public Health.

You are hereby requested to give him the collaboration he needs to collect information necessary for these studies

**THE REGIONAL DELEGATE**

**PUBLIC HEALTH**

Dr. Manjo Fon

MD-MPH

cc

- All DMOs, Directors of Public/Priv/Confess.Hospitals
- The concerned
- The File/Chrono

Appendix E NIH – Protecting Human Research Participants

**Certificate of Completion**

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Chenwi Ngwa** successfully completed the NIH Web-based training course “Protecting Human Research Participants”.

Date of completion: 06/19/2014

Certification Number: 1491302