



**ANALYSIS OF THE BARRIERS TO HEALTHCARE ACCESS IN INFORMAL URBAN  
SETTLEMENTS; A CASE OF AGATARE SETTLEMENT IN NYARUGENGE  
DISTRICT**

Dissertation submitted to the Department of Development Studies, College of Arts and Social Science (CASS), in partial fulfillment of the requirements for the award of the degree of Masters of Arts in Development Studies of the University of Rwanda (UR)

**Submitted by;**

KANYANGE Rose (REG NO. 218014684)

**Supervised by;**

UWIZEYE Dieudonne, PhD

Huye, October 2019

# DECLARATION

I Kanyange Rose, declare that this dissertation is my original work and has never been submitted or published to any university for any award.



Signature: ..... Date: .....4<sup>th</sup> November 2019.....

KANYANGE Rose

REG No.**218014684**



MASTER'S PROGRAMME IN DEVELOPMENT STUDIES

FINAL AUTHORISATION TO DEPOSIT FORM

Names of the Student: Rose Kanyange.....

Names of the Supervisor: ...Dieudonne Uwizeye, PhD.....

Dissertation Title:

**ANALYSIS OF THE BARRIERS TO HEALTHCARE ACCESS IN INFORMAL URBAN  
SETTLEMENTS: A CASE OF AGATARE SETTLEMENT IN NYARUGENGE DISTRICT**  
.....

As Supervisor of the dissertation with the title above, I hereby authorize the student to submit the final version as we discussed for examination by the School.

Done at Nairobi, on October 22, 2019

Signature of Supervisor:

## **DEDICATION**

I would like to dedicate this work to my dear husband Richard Muliisa. Your presence, patience and support was very fundamental in achieving my objectives.

## **ACKNOWLEDGMENTS**

My acknowledgements go to everyone who supported me in any form. Special acknowledgement goes to all the Community Health Workers (CHWs), Households, Health Centres and leadership of Agatare cell for participating in the discussions, openly sharing their experiences and answering questions related to the research topic in general. Sincere thanks goes to my academic supervisor Dr. Uwizeye Dieudonne. Achieving my objectives would not have been possible without your encouragement and guidance.

## **ABSTRACT**

Lack of access to healthcare worsens one's health and reduces their productivity, which results into poverty. Poor people have less access to healthcare, yet they experience severe disease burden and live in deprived areas. This study aimed at analyzing barriers to healthcare access in informal urban settlements.

A qualitative research design was adopted to meet the study objectives given its suitability in identifying the nature and characteristics of the existing financial, structural and cognitive barriers to healthcare access as per the study objectives. An interview guide was used to collect data through focus group discussions and interviews with key informants who were selected purposively. Data was analyzed through deductive content analysis in line with the "Health Care Access Barriers" (HCAB) model.

The study findings revealed that majority (92%) of people in the study area have medical insurance and access healthcare services in a walkable distance. However, some barriers were identified and categorized into three themes in line with the (HCAB) model; financial (affordability, low income and competing priorities), structural (irregular availability of medicine, long waiting time and insufficient equipment and healthcare personnel) and cognitive barriers (mixed use of traditional and modern medicine).

Insights from the study identified insufficient availability of medicine and equipment at health centres as the major barrier to healthcare access leading to increased financial risks, poor health outcomes and less productivity. The study therefore recommends increased availability of medicine, equipment and staffing at health facilities proportional to the needs of people in informal settlements. In addition, there is need for mind-set shift towards healthy living. Further studies should be conducted to quantify the existing gap and impact of healthcare access barriers.

**Key words; Healthcare, Access, Barriers, Informal settlements**

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## LIST OF ABBREVIATIONS

<b>CBD:</b> Central Business District.....	14
<b>CBHI:</b> Community Based Health Insurance .....	11
<b>CHWs:</b> Community Health Workers .....	12
<b>DHS:</b> Demographic Health Survey .....	12
<b>HCAB:</b> Health Care Access Barriers .....	14
<b>HSSP:</b> Health Sector Strategic Plan .....	11
<b>MDGs:</b> Millennium Development Goals .....	10
<b>MMI:</b> Military Medical Insurance.....	41
<b>MUSA:</b> Mituelle de Santé .....	39
<b>RSSB:</b> Rwanda Social Security Board .....	41
<b>SDGs:</b> Sustainable Development Goals .....	10
<b>SEDO:</b> Social Economic Development Officer .....	35
<b>UHC:</b> Universal Health Coverage.....	13
<b>UNCED:</b> United Nations Conference on Environment and Development .....	26
<b>WHO:</b> World Health Organisation .....	16

# CHAPTER 1:

## INTRODUCTION

### 1.1. Background

#### 1.1.1 Global perspective on healthcare access and informal settlements

Lack of access to healthcare worsens one's health and reduces their productivity, which results into poverty (Peters et al, 2008). Without access to healthcare, one is deprived of the capability to work, earn and meet their basic needs, including food, housing, healthcare, among others which impairs their health, shortens their lifespan and maintains a state of chronic poverty which can extend to other generations (George, 2009). In other words, unequal access to healthcare exacerbates poor health, a cause and consequence of poverty (FHS, 2018). The situation is worse for people living in informal urban settlements as they face a high disease burden, premature death and consequently poverty (Sverdlik, 2011). According to the 2016 WHO global report on urban health approximately one billion of the world's population stays in informal settlements and the number might rise to two billion in the next 30 years if no serious measures are taken. The influx of people reside in informal settlements and get exposed to health risks and affects development in all aspects (Woodbridge, 2015).

The crucial influence of healthcare access on development led to national and international development agendas to shift focus towards increasing access to essential healthcare services. Global leaders established that everybody deserves to enjoy quality healthcare (which is also a fundamental human right) without discrimination of any kind (OECD, 2003). This is evidenced by the third Sustainable Development Goal which seeks to "ensure healthy lives and promote wellbeing for all, at all ages" (Woodbridge, 2015).

Such global efforts are a clear indication that countries recognize healthcare access as a human right and therefore strive to address healthcare needs of their citizens. Healthcare access was further emphasized by the current Director General of the World Health Organization, Dr. Tedros Adhanom Ghebreyesus, in his statement during the 2017 Human Rights Day where he echoed the need to uphold the right to health for all where healthcare services can be accessed whenever needed and wherever one resides without any barriers. With good health, children can ably grow and learn, adults are enabled to work and earn which fosters their growth out of poverty and provides a basis for lasting economic development (WHO, 2019).

Despite global efforts, healthcare access is still a challenge with a heavy disease burden on the poor and in areas with less infrastructure (Nunn et al, 2008). Different stakeholders in healthcare have competing interests(Muth, 2017). While the patients strive for access to affordable and patient- centered healthcare, healthcare providers also struggle to balance quality with cost saving, profit, convenience among others (Porter, 2010). The interplay of these conflicting interests poses barriers to accessing healthcare services. Although urban areas are regarded to be better off in terms of access to basic services like healthcare, they are characterized by high levels of inequalities given that their income levels and housing quality varies (Fink et al, 2012).

Evidence from existing literature suggests a causal relationship between improved health and accelerated economic gains(Ashraf et al, 2009). Available literature also suggests a causal relationship between poor health and chronic poverty (Peters et al, 2008). In fact, some studies reveal high morbidity associated with poor housing and neighborhoods characterized by overcrowding, dampness, poor sanitation, inappropriate waste disposal and lack of safe drinking water (Krieger & Higgins, 2002). Such conditions put inhabitants at risk of biological, physical and chemical hazards which not only compromise their health (Gwabeni, 2016) but also limit their access to healthcare services.

### **1.1.2 Healthcare access in Rwanda**

Rwanda has made significant efforts in ensuring that affordable health care is available and can be accessed by all citizens with no discrimination. The policy framework is driven by national constitution which recognizes that “all Rwandans have the right to good health”. Through the Ministry of Health’s Health Sector Strategic Plan (HSSP IV), emphasis is put on ensuring universal access of healthcare services in both geographical and financial terms through reducing distance to health facilities and increasing insurance enrollment respectively.

In respect to geographical access, efforts have been implemented to reduce the time and travel distance from health facilities to the users. Improvement of social amenities like health centres and health posts at cell level has increased demand and access to health care. In terms of financial access to healthcare, the Community Based Health Insurance (CBHI) framework has seen insurance enrollment rise from 70% in 2014 to 85% in 2018, thus reducing impoverishment due to high health expenditures (MOH, 2018). In addition to increased geographical and financial access to healthcare, the presence of Community Health Workers (CHWs) at village

level is a valuable catalyst to healthcare access at grassroots. The government of Rwanda has also invested heavily in human resources to health, procurement of medical products and equipment aimed at increasing service availability. Kigali city being an urban area, healthcare access is presumably positive, given the concentration of health facilities within the city (Joshi, Joshi, & Damani, 2013).

However, like many developing countries, Rwanda is faced with several barriers in accessing healthcare services for all despite all efforts. Whereas some measures have been embarked on, the demand for health facilities continues to grow faster than the expansion of health facilities and service providers. According to the EICV 5, only 57% of people who became ill got care in 2017, up from 56% in 2014 (NISR, 2015). Further still, the Demographic and Health survey (DHS) 2014/15 signals 22% of the population faces geographical barriers while 77% of the population faces financial barriers in accessing healthcare services (DHS, 2015).

In light of these barriers, a big portion of the population in Rwanda faces health risks due to failure to access healthcare due to various reasons/barriers. Vulnerable groups including children, pregnant mothers, disabled, female headed households, (UNDP 2015) are at risk of continued disease or premature death due to healthcare access barriers (Siegel et al, 2011). The fast growing population and increased formation of informal settlements characterized by unproportioned access to basic services in Kigali is an indication of urban poverty and increased vulnerability to health risks for people living in such deprived areas, a challenge for attaining healthcare for all. This is partly due to insufficient government resources to provide the necessary infrastructure and basic services (Mahabir et al, 2016).

In view of Andersen's model of healthcare access, it is clear that many countries, Rwanda inclusive invest heavily in ensuring potential healthcare access through reduced travel distance to health facilities and increased enrollment to the community health insurance scheme. However, proximity does not guarantee access (Else & Agarwal, 2016) and little is known about realized access to healthcare which makes it difficult to address this challenge.. This study therefore seeks to explore both potential and realized access to healthcare with focus on informal urban settlement which is one identified vulnerable groups.

## **1.2. Statement of the problem**

The study intended to investigate barriers to healthcare access in informal urban settlements in Kigali city. Given the causal relationship between poor health and poverty, failure to access

healthcare services in informal urban settlements implies low economic activity due to illness and time spent while seeking healthcare services. The persistence of such barriers poses a challenge for Rwanda to maintain its hard gained development achievements. Lack of evidence on existing barriers to healthcare access would not only delay efforts to address these barriers and but also negatively impact the health of Kigali's biggest population which resides in informal urban settlements. The study therefore sought to bring to book, barriers that impede healthcare access to inform policy decisions on addressing such barriers in a bid to increase access to healthcare for all.

### **1.3. Research Objectives**

This study aims to identify barriers to healthcare access in informal urban settlements in Kigali city. Specifically, the study will respond to the following objectives:

1. To assess the status of healthcare access in informal urban settlements
2. To identify financial barriers to healthcare access in informal urban settlements
3. To determine structural barriers to health care access in informal urban settlements
4. To identify cognitive barriers to healthcare access in informal urban settlements

### **1.4. Research questions**

- i. What is the status of healthcare access in informal urban settlements?
- ii. What financial barriers do people living in informal urban settlements face in accessing healthcare services?
- iii. Which structural barriers limit informal settlements from accessing healthcare?
- iv. What cognitive barriers limit healthcare access in informal settlements?

### **1.5. Significance of the study**

This study will inform policy drivers on the status of healthcare access in informal settlements, existing barriers and the potential consequences for health and well-being of the population. As suggested by existing literature, availability and proximity does not guarantee access (Elsay & Agarwal, 2016). Not even having health insurance is enough for someone to access healthcare due to limitations with insurance cover and high co-payments (E Devoe et al, 2007) which the insured cannot afford. This research will therefore bring to book critical gaps in Rwanda's

healthcare system which constitute healthcare access barriers to inform policy interventions towards equitable healthcare for all and also facilitate rational decisions on informal urban settlements.

Since many studies in healthcare focus on the macro-level indicators such as maternal and child mortality rates, distance to health facilities and health insurance enrollment rates, findings of this study will uncover qualitative aspects that limit healthcare access with special focus in informal settlements which are vulnerable to health risks.

## **1.6. Scope of the study**

In terms of geographical location, the scope of this study was narrowed down to Nyarugenge district, the origin of urbanization in Kigali city with high concentration of old informal urban settlements particularly in Nyarugenge sector. Although it is currently Kigali City's Central Business District (CBD), this area is characterized by overcrowded, unplanned settlements some of which are located in high risk areas with average occupancy of 4 people per household. This area was selected with guidance from the Neighborhood & Housing Architect from the City of Kigali.

In terms of content, this study focused on existing barriers in relation to financial capacity, systematic issues and cultural or cognitive barriers to healthcare access. These barriers are inspired by the Health Care Access Barriers (HCAB) model proposed by Carrillo et al (2011).

## **1.7. Limitations of the study**

The study focused on informal urban settlements which house people struggling to make ends meet as they leave home early in the morning and return late, making data collection difficult. This limitation was offset by purposive sampling which focused on a few respondents that are more informed about the study topic. This study also involved asking sensitive information such as personal financial barriers and perceptions on healthcare access, which could affect accuracy of information provided. In this regard, triangulation was applied to seek information on the same topic from different sources such as community health workers, selected households and local leadership of the study area. As such, participants were asked the same questions in different ways and responses compared/ triangulated to identify emerging themes.

The study was also limited by data gaps such as trends of insurance enrollment at the cell level as data was only available for one year (2019/20). As such, the researcher relied on the available field data and secondary data from document review to depict a general situation regarding the study topic. In addition, the geographical scope of the study focused on Agatare cell, which is considerably a small area compared to the many informal settlements in Kigali city. However, the study findings are generalizable to people living in Kigali's informal urban settlements in Kigali given similarities in the healthcare needs and characteristics of informal urban settlements. Despite limitations in scope, results of the study depict the general status of healthcare and reveal barriers which can inform policy reforms on informal settlements and healthcare service delivery in urban areas.

## **1.8. Organization of the study report**

The study is organized into five sections each of which constitutes a chapter. The first chapter (Introduction) highlights the study background, problem at hand, objectives, scope, significance and limitations. The second chapter (Literature Review) details the definition of key concepts and highlights scholarly findings on barriers to healthcare access extracted from existing secondary literature from both a national and global perspective.

The third chapter (Methodology) describes the methodology, data collection tools and techniques used to analyze data while investigating the research problem. The fourth chapter (Research Findings) describes and analytically discusses the study findings in light of existing literature. Lastly, chapter five (Conclusions & Recommendations) summarizes the study findings, the researcher's recommendations and conclusion based on the study findings.

# CHAPTER 2

## LITERATURE REVIEW

### 2.1. Introduction

This section covers definition of key concepts, theoretical review of the study, the conceptual framework, empirical review of gaps in literature and summary of the chapter.

### 2.2. Definition of Key concepts

#### 2.2.1. Healthcare access

Healthcare access is interpreted in various ways by different scholars (Adiukwu, 2015). Some scholars define healthcare access as “the timely use of service according to need”(Peters et al, 2008). This concept represents a fit between patient needs and the services that meet those needs (Corscadden et al., 2017) and involves supporting people to receive appropriate healthcare services to either protect or improve their health (Gulliford et al, 2002).In addition, healthcare access involves the availability of healthcare information and the ability to receive healthcare services without discrimination based on age, sex, financial ability among others (N Huls, 2005).

Access to healthcare is rooted in the principle of Universal Health Coverage (UHC)- a global health strategy spearheaded by the World Health Organization (WHO), often used to mean “access for all, to promotive, preventive, curative and rehabilitative health care at affordable costs”(Jacobs et al, 2012). This concept gained momentum following the 1978 Alma Ata Declaration which established a standard of public commitment to making community-driven, quality health care accessible, both physically and financially (WHO, UNICEF, 2018).While some scholars view healthcare access from a supply side in terms of availability of health services, others view healthcare access from a demand perspective, that is, services consumed/used (Peters et al, 2008).

According to Andersen (2014), access to healthcare can be viewed as potential or realized access. All enabling resources for health care utilization or the opportunity to use care that is available(Jacobs et al., 2012) constitutes potential access whereas realized access on the other hand refers to actual healthcare services used and the level of satisfaction (Andersen &

Davidson, 2014). In other words, potential access relates to the “entry of a population group into the health care delivery system”(Documét & Sharma, 2004)while realized access relates to the actual use(Doetsch et al, 2017).Healthcare accessibility also implies availability of underlying determinants of health, such as safe water and adequate sanitation facilities (Gulliford et al, 2002). Generally, whether people have access to healthcare services or not is determined by their circumstances and environment(Adiukwu, 2014).Access is not just about having health facilities but involves an interplay of availability of healthcare providers, supply of medicines and vaccines, cooperation of all global health players to ensure improved health outcomes (Sambala et al, 2010) .

This study therefore considered dimensions such as geographical access (involves distance and time), availability of services (involves appropriateness of services, service providers and waiting time), Affordability of services (price of services, willingness/ability to pay and protection from health costs) and acceptability which involves the responsiveness to social and cultural expectations.(Peters et al, 2008) .

### **2.2.3. Informal Urban settlements**

Informal urban settlements, also known as slums are given different names such as “favelas” in Brazil (O’Hare & Barke, 2002), ”kampung” in Indonesia (Ernawati, 2013)”utujagari” in Rwanda (MININFRA, 2015) among others. The United Nations defines informal settlements in two dimensions; one being residential areas with housing units constructed on land to which the occupants have no legal claim and secondly, areas where housing is not in accordance with existing planning and building regulations (UN Habitat 2011). Such settlements are regarded as informal because they often do not meet legal standards for construction and thus exist without formal approval of the authorities(Wakhungu et al, 2010).

The UN Human Settlements Programme characterized informal settlements as areas with inadequate access to safe water, poor housing, overcrowding, and insecure residential status(Van de Vijver et al, 2015). Informal settlements are also characterized by lack of access to basic services, paved roads and sanitation facilities (Jm et al, 2017). Most households in those areas live in single-roomed congested houses surrounded by open sewage and lack dumping sites which exposes such populations to severe health risks (UN Habitat, 2003) like malaria, typhoid, cholera among others (SERI, 2018). Worse still, there is limited access to sanitation services with one latrine shared by 20-40 household (Joshi et al 2013).Such conditions, in addition to

unfriendly topography leave no room for social infrastructure like health and sanitation facilities (Hitayezu-et-al-2018). Absence of basic social services therefore affects environmental health and subsequently poses health risks (Merkel & Otai, 2007) which compromise the quality of life of the inhabitants(Wakhungu et al, 2010).

According to the 2016 WHO global report on urban health, nearly a billion people live in informal settlements and the number is expected to double by 2050. Of the projected global population increase, nearly all will be urban dwellers (Van de Vijver et al, 2015). The concentration of informal settlements predominantly lies in less developed countries (UN Habitat, 2003) majority of which are located in Africa with over 72% population living in informal urban settlements (Merkel & Otai, 2007). In 2014,Sub-Saharan Africa in particular had over 55 per cent of its people in informal settlements(Woodbridge, 2015) with concentration in countries like South Africa and Kenya (Tsinda et al, 2013).

The influx of people living in informal settlements is partly attributed to accelerating urbanization, need for cheap housing(Adiukwu, 2014), increase in population (Woodbridge, 2015) and the lack of capacity for governments to provide the necessary infrastructure and basic services (Mahabir et al, 2016). The mushrooming informal settlements are partly attributed to the growing populations and increasing urbanization which pushes people into relatively affordable areas majority of which are informal settlements(Tsinda et al, 2013).

The increasing number of informal urban settlements is a clear manifestation of poverty and inequalities in urban areas, something which has continuously raised global concerns(UN Habitat, 2003). In 1990, Over 31% of the world's population lived in informal urban settlements and the number is projected to double by 2020 and to 3 billion by 2050 if current trends persist (UN Habitat, 2010).

### **2.3. Linking Healthcare access and Poverty**

Healthcare access is a crucial element in human development and poverty reduction (OECD, 2003). The relationship between healthcare access and poverty is intertwined, whereby lack of healthcare access leads to ill health, a catalyst for poverty while poverty on the other hand can limit access to healthcare and perpetuate illness (DFID, 2005). Following the World Bank's definition of poverty, "deprivation in wellbeing" (World Bank 2000) including hunger, lack of access to appropriate, medical care (OECD, 2003), poverty is viewed as both a cause and effect of healthcare access, a catalyst for poor health (Sorsha Roberts, 2018).This is partly because of

the related out of pocket expenditures incurred on buying medicines, transport costs in addition to lost income during sickness (World Bank, 2014).

Evidence shows that the poor suffer more barriers when accessing health care, face limited social protection, have worse health and die younger. Failure to access healthcare deteriorates one's health and can trap the entire household in a cycle of poverty due to lost income yet they incur high health costs(OECD, 2003). For example, ill health can easily prevent the household head from working, thus affecting the household income and can result into chronic poverty if the illness is prolonged without access to healthcare(Pryer, Rogers, & Rahman, 2005).Further evidence shows that some people face time constraints that limit their healthcare access (Taber et al, 2015) or are just too busy trying to survive (Stajduhar et al, 2019). These scholars argue that the poor tend to prioritize meeting immediate basic needs for daily survival such as looking for food, and thus do not have time to seek healthcare services.

People in developing countries suffer health shocks due to poverty because the poor cannot afford basic needs such as quality meals, education later on quality healthcare (Atake, 2018). In addition, poverty affects their ability to enroll into health insurance(Raiz, 2006) while others drop out of insurance due to failure to pay premiums (Umeh &Feeley, 2017).Some scholars argue that due to poverty, developing countries have limited public health expenditures, thus leaving the burden of health expenditures to households (Baeza & Packard, 2006) which incur high out of pocket expenditures on medical bills, resulting into financial barriers to accessing healthcare(Ke et al, 2016). Recent analysis by WHO on global public spending trends reveals that 80% of the world's population lies in developing countries yet they contribute only 20% of the global health spending and thus continue to lag behind (Xu et al, 2018) in terms of improved health outcomes.

## **2.4 Barriers to Healthcare access**

Barriers to healthcare access refer to factors that hinder one from accessing healthcare services (Jacobs et al, 2012)when needed. Such factors and are often faced by different stakeholders in the healthcare system including individuals and healthcare providers (Mirza et al, 2014). Different scholars describe healthcare access barriers in various dimensions categorized barriers to health care access into three that is, no health insurance coverage, no access to care and inability to afford co-payments and other costs even if one is insured. Other scholars propose that the extent to which a population 'gains access' also depends on 'financial, organizational and

social or cultural barriers that limit the utilization of services' (Gulliford et al, 2002). These barriers are not far from Andersen's argument that access to healthcare is greatly influenced by one's education and occupation the lack of which influences affordability of healthcare services.

In addition, the Health Care Access Barriers (HCAB) model as proposed by Carrillo et al (2011) categorizes barriers into financial, structural and cognitive barriers which limit healthcare access. Tim & Stephanie (2004) classified access barriers into supply side and demand side barriers. Supply side barriers stem from the providers of healthcare services and the healthcare system as a whole. These include limited expenditure for the healthcare system and insufficient service availability (Hout et al, 2019). Demand side barriers on the other hand are reasons that hinder access to healthcare (Tim & Stephanie, 2004). It is therefore clear that many scholars have emphasized geographical, financial and systematic barriers that hinder access to healthcare, which are closely linked with living conditions.

Living conditions impact health and access to healthcare services which may pose severe consequences to the health and well-being of the population and result into negative health outcomes (Siân et al, 2018) such as premature deaths and reduced lifespan (Hout et al, 2019). Studies reveal that people living in remote, rural areas and informal settlements find difficulties in accessing healthcare due to various social and economic factors (Angoua et al, 2018). For purposes of this study, the focus will shift towards informal settlements and existing healthcare access barriers.

Evidence shows that although urban dwellers receive better healthcare services than those in rural areas, there is a disparity between the level of access between the rich and poor in urban areas. (Dye, 2008). As per the 2016 WHO global report on urban health, nearly a billion people live in informal settlements characterized by congestion, unfriendly topography and lack of basic services which limit healthcare access. It is argued that people who live in such areas experience deplorable living conditions and often face barriers in participating in the political and socioeconomic affairs of the community (Arimah, 2012).

With over 71% of Africa's urban population living in informal settlements (Merkel & Otai, 2007), there are a lot of physical, material and social barriers for poor and vulnerable households which limit their ability to access healthcare services (Joseph M Macarthy, 2018). This is partly attributed to several disparities in healthcare access which are also referred to as health inequities

(Riley, 2012). For example, South Africa's informal urban settlements recorded 88% prevalence of tuberculosis, one of the leading causes of mortality in South Africa (SERI, 2018). In addition, a study conducted by Human Sciences Council in 2012 revealed that HIV new infection rate was higher in informal settlements compared to the formal settlements. This is similar to Nairobi's slums where child mortality is twice that of formal urban settlements i.e. 151/1000 versus 61/1000 respectively (Merkel & Otai, 2007). These and many other pulling and pushing factors (UN Habitat, 2003) undermine the health of people living in informal urban settlements, thus shortening their lifespan.

Different scholars classify barriers to healthcare access in correspondence with the Health Care Access Barriers (HCAB) Model proposed by (Carrillo et al., 2011). This model describes barriers into three categories that is financial, structural, and cognitive barriers. These barriers reinforce each other and thus don't work in isolation (Siân George et al, 2018).

#### **2.4.1. Financial Barriers to healthcare access**

Financial access is one of the most important determinants of healthcare access and is mostly directly linked to dimensions of poverty (Peters et al, 2008). Evidence shows that some people are too busy looking for survival (Stajduhar et al, 2019) and have no time for healthcare (Taber et al, 2015) while others have the time, but lack the financial capacity to access healthcare (Collier et al, 2009).

The 2017 Global Monitoring Report revealed that over half of the world's population lacks access to essential healthcare services and approximately 100 million people face financial hardships in accessing healthcare services (WHO & World Bank, 2017). Scholars argue that the poverty trap experienced by most countries, households and individuals (Wang & Wang, 2013), is a major barrier to accessing healthcare. A study conducted in Nairobi's Kibera slum revealed that due to financial hardships, the elderly accessed healthcare at only 40% (Jm et al, 2017), leaving the rest to resort to self-medication, seek help from religious and traditional healers or just persevere with the tough conditions until they heal naturally.

According to Carrillo et al (2011)'s Health care Access Barriers Model, financial barriers to health care access arise in vulnerable populations when patients are uninsured or underinsured, thus impeding them from meeting their medical bills (Siân George et al, 2018). Evidence shows

that majority people in informal settlements are either poor or lack health insurance (Collier et al, 2009). For example, over 90% of slum residents in Nairobi do not have health insurance (Van de Vijver et al., 2015) and thus rely on out-of-pocket payments for health care, which negatively affects their health seeking behavior.

Some scholars however suggest that having health insurance does not guarantee access to healthcare service due to limitations with insurance cover and high co-payments (E Devoe et al, 2007) which the insured have no financial capacity to cover (Raiz, 2006). Evidence shows that the cost of healthcare influences who gets medication in a household, when and how often. For example, lower income groups in the United Kingdom use general practitioners and outpatient services as much and possibly more than other income groups (Tim & Stephanie, 2004). This is because Individuals and households are often constrained with high medical bills resulting into catastrophic expenditures, a major cause of poverty. Financial barriers also include failure to afford transport to health facilities which causes delays in accessing healthcare (Varela et al, 2019).

In a nutshell, financial barriers limit poor urban household living in informal settlements from accessing health services simply because they cannot meet the extra costs such as transport, medication and related services (Joseph M Macarthy, 2018). Worse still, some households are forced to sell their assets to cover medical expenses (World Bank, 2014) which further plunges them into poverty.

#### **2.4.2. Structural barriers to healthcare access**

Structural barriers include organization of the healthcare system, transportation, geographical location among others (Siân George et al, 2018). Excessive waiting times for example limit healthcare access for people ( patients and care-takers) from distant neighborhoods (Carrillo et al., 2011). This is partly attributed to shortage of healthcare professionals leading long patient waiting hours due to increased workload (Hout et al, 2019).

In addition, overcrowding at health facilities is also regarded as a demotivating factor as it contributes to long hours of waiting to access a healthcare provider (Jacobs et al, 2012). Consequently, people resort to other alternatives such as traditional healers, self-medication (Hout et al (2019). Previous bad experiences during healthcare access are also considered as a structural barrier to healthcare access (Joseph M Macarthy, 2018).

A study in Northern Honduras revealed travel distance, transport availability, being too ill to travel, no time off work and facility crowding as additional structural barriers to accessing health care (Hout et al, 2019). Distant health facilities for example escalate travel costs which limits patients from travelling to access health care. It also limits expectant mothers from accessing emergency deliveries (Tim & Stephanie, 2004), one of the reasons some women choose to deliver at home rather than at a health facility (Khan et al, 2009). Travelling to distant health facilities takes a lot of time and causes distress financially and emotionally due to time spent away from families and work (Hout et al, 2019).

In addition structural barriers include lack of reliable information which may lead to poor decisions on whether, when, and where to go for treatment (Tim & Stephanie, 2004). Secondly, due to low or no education levels, some people lack the human capacity to live healthy lifestyles are unable to relate health conditions or even read expiry dates on medication (Tim & Stephanie, 2004). A 1995 survey conducted in Bangladesh revealed that women do not seek treatment in the case of obstetric emergencies due to knowledge gaps on when to seek medication and lack of information on available services (Tim & Stephanie, 2004). A similar study conducted in Pakistan revealed maternal schooling as the most important determinant of infant survival (Tim & Stephanie, 2004). Education thus enables an individual to be more effective in utilizing health care information.

### **2.4.3. Cognitive Barriers to healthcare access.**

Cognitive Barriers relate to cultural and attitude aspects(Siân George et al, 2018). The use of healthcare services may be influenced by health beliefs which is a combination of attitudes, values and knowledge towards healthcare(Andersen & Davidson, 2014). Evidence reveals that people's access to healthcare is highly affected by their dogmas about diseases and medication (Banerjee et al, 2012). For example, in areas where women and men do not interact freely, women hesitate to seek obstetric and gynecological services rendered by male practitioners (Whiteford and Szilag,2000). A study conducted in Uganda revealed that women of the Alur tribe are presumed to be weak if they seek healthcare services during delivery (Nabukeera, 2016). Similarly, a recent qualitative study conducted in Iran revealed disrespect and negative attitudes towards people with disability as a barrier for people with a disability to access care(Soltani et al, 2017).

Language barriers also pose as cultural barriers that limit healthcare access. For example, approximately 97.5% of aboriginals in the Northern territory of Australia do not speak English and thus face linguistic barriers while accessing health care services (Li, 2017) provided by English speaking healthcare providers.

## **2.5. Theoretical framework**

This study on addressing access barriers to healthcare services in Kigali's informal urban settlements was inspired by three development theories; Capability theory, the Sustainable Livelihoods Approach and Basic Needs Theory/ Approach.

### **2.5.1. Amartyr Sen's Capability Theory**

This people-centered theory argues that a person's capabilities are enabled by the political freedoms, economic facilities and social opportunities at their disposal (Sen, 1999). Political freedoms increase one's participation in the affairs of their community; economic facilities increase one's capability to accumulate wealth whereas social opportunities such as access to health care contribute to the wellbeing of the community.

This study focused on healthcare access as one of the social opportunities presented by this theory. Sen argues that relative income is crucial because it translates into capabilities or what you can do with what you have, which is an important factor in accessing healthcare services. He adds that lost income and healthcare expenditures result into shocks which affect income and asset inequalities. In order for countries to ensure a healthy, productive population and also meet sustainable development goals, it is critical that people, regardless of their social status get access to quality healthcare services (WHO, 2016). In his book, *Development as Freedom*, Sen argues that development is concerned with enhancing people's lives and the freedoms they enjoy. He emphasizes freedom from ill health and from avoidable death as the most important freedom (Sen, 1999).

However many people globally do not enjoy this freedom as they struggle to access healthcare services, lack sanitation facilities, clean water which in turn affect their chances to survive (Sen, 1999). This consequently reduces their lifespan and sometimes succumb to death prematurely (Ensor, 2004). According to the World Bank, approximately half of the world's population lacks

access to essential health services, with severe challenges in Sub-Saharan African and Southern Asia (Sen, 1999). Many low and income earners in Africa persistently lack access to healthcare due to structural inequalities that arise due to social exclusions (Soors, 2013). A recent survey in 36 African countries ranked health as the second- most important problem that their governments need to address(Armah-Attoh et al, 2016). Sen therefore argues in favor of the need to move away from the ‘traditional’ view of development which focused on per capita income growth and to see development as the expansion of human capabilities in terms of political, economic and social freedoms.

Scholars, in support of the capability theory view healthcare access as a right, not a privilege (Papadimos, 2007). Failure to access health care impedes one from enjoying other human rights such as political, economic and social freedoms (Čelkis & Venckienė, 2011). Other scholars emphasize the existence of a soul(Papadimos, 2007) and the character of the moral agent(Scott, 1995). This scholar argues that “whatever has a soul displays life and must be nourished in order to grow”. He further argues that “healthcare access is a necessity for the soul to attain its fullest growth”.

Nunes et al, (2017), emphasize the right to quality healthcare as an enabling factor for equal opportunities in a free and inclusive society. A person’s physical, mental and social wellbeing and not merely the absence of disease (WHO, 2012) affects their capability to participate in economic activities thus impacting their income levels and subsequent quality of life(Sen, 1999). This goes as far as wellbeing of households and communities and availability of social amenities such as schools, health facilities, roads and electricity among others (WHO, 2012).

The capability theory is further reinforced by Andersen’s Behavioral Model of health services which proposes that one’s use of healthcare services is influenced by demographic factors, social structures and health beliefs (Andersen & Davidson, 2014).Better health can for example improve the quality of life and increase one’s ability to earn income, access sanitary facilities, accumulate wealth and gain freedom from poverty(Sen, 1999).

### **2.5.2. The Sustainable livelihoods Approach**

Scholarly arguments indicate that the theory of sustainable livelihoods theory first appeared in research literature in the 1980s and its inclusion in the White Paper marked its transfer to the policy domain(Court, Hovland, & Young, 2005). This theory gained momentum in 1997

following its recognition in the White Paper on international development as a core principle in pro-poor policy making (DFID, 1999).

According to Chambers & Conway (1992), a 'livelihood' comprises the human capabilities such as health and education, assets (including both material and social resources) and activities required for a means of living. These scholars base this approach on the ideas of capabilities, equity and sustainability, all of which are important facets of healthcare access. Although the sustainable livelihoods approach is often related to the rural poor, it embodies three fundamental attributes of human capabilities, assets and economic activities which are key determinants in accessing healthcare (Chambers & Conway, 1992).

This approach argues the poor act as "strategic managers" in negotiating their livelihood outcomes (Tincani, 2015). This is not different from the 'survival imperative proposed by Stajduhar et al (2019) whereby people prioritize daily survival to healthcare access. According to Frank Ellis this theory focuses on the everyday life realities of the poor people and seeks to identify how the poor secure their living and what it is that can sustain poor households through the stresses and shocks of their lives. Chambers & Conway (1992) propose that this approach emphasizes the need to understanding the vulnerability context and institutional environment within which poor people draw upon assets. It also puts emphasis on the notion of sustainability, and the need for a people centred and participatory approach, responsive to prevailing challenges (Norton et al, 2001).

All these scholarly arguments in line with the sustainable livelihoods approach improve understanding of the poor and how these constraints relate (Serrat, 2017). Scoones (1998) argues that poverty is not all about wealth, but rather includes other aspects like sickness and inaccessibility to social amenities which Krantz (2001) described as "a state of vulnerability and feeling of powerlessness". Other scholars argue that a livelihood can only be sustainable if people have the ability to cope with and recover from stresses, shocks and enhance their capabilities and assets. (Elsemarie et al, 2010).

Generally, the sustainable livelihoods approach is people-centred and recognizes that people have abilities and assets that can be developed to enable them improve their lives (OXFAM, 2013). In addition, it is holistic and provides an integrated view of how people make a living within evolving social, institutional, political, economic and environmental contexts ( Krantz, 2001).

### **2.5.3. Basic Needs Theory**

Also referred to as the basic needs approach, this theory is associated with specific goods or services that all human beings must have in order to attain a minimum standard of living. This theory surfaced in 1976 during conference where satisfaction of basic human needs was prioritized as a dominant objective in the international development agenda (Jilin Dicen, 2015). This theory was considered to be the only theory that takes community development beyond just the various "approaches" (Schutte & Dphil, 2015).

Just like Nunes et al, (2017) emphasized the idea of quality healthcare and not just any form of healthcare, the basic needs theory focuses on mobilizing particular resources for particular vulnerable groups and concentrates on the nature of what is provided rather than on income (Streeten, 1979). For example, housing as a basic need goes beyond providing shelter but considers the safety and affordability of housing as a gateway to meeting other basic needs (Mulroy & Ewalt, 1996). The universal declaration on Human Rights, Article 25 of the United Nations Organization (UNO) states that everybody has the right to a standard of living adequate for the health and wellbeing of himself and his family including food, clothing, housing, medical care, and necessary social services (Kothari et al, 2006).

### **2.5.4. The nexus between healthcare access barriers and existing theories**

As indicated in the previous sections, the Capability theory, Sustainable livelihood theory and Basic needs theory are all people - centred and recognize healthcare access as a freedom, a right and basic need respectively that enhances people's capabilities and wellbeing. These theories view human capabilities as the core of human development which involves expanding choices for people in order to live valuable lives (Kothari et al, 2006).

The Capability theory argues that a person's capabilities are enabled by the political freedoms, economic facilities and social opportunities at their disposal (Sen, 1999). Freedom from ill health and from avoidable death is emphasized as the most important freedom (Sen, 1999). However, this freedom can only be enjoyed if one has the economic facilities that capacitate them financially and social amenities where services such as healthcare can be accessed. If some households are forced to sell their assets to cover medical expenses (World Bank, 2014), then the freedom from ill health cannot be freely enjoyed.

In the same regard, the Sustainable livelihood theory puts emphasis on human capabilities, assets and activities all of which affect or can be affected by one's health. The ideas of capabilities, equity and sustainability advanced by this theory are important facets of healthcare access as they play an important role in reducing vulnerability, which is a key dimension of both chronic and transient poverty (McKay, 2009). As proposed by (Chambers & Conway, 1992), it is therefore important to understand the everyday life realities and needs of the poor people and what be done to sustain poor households through the stresses and shocks of their lives.

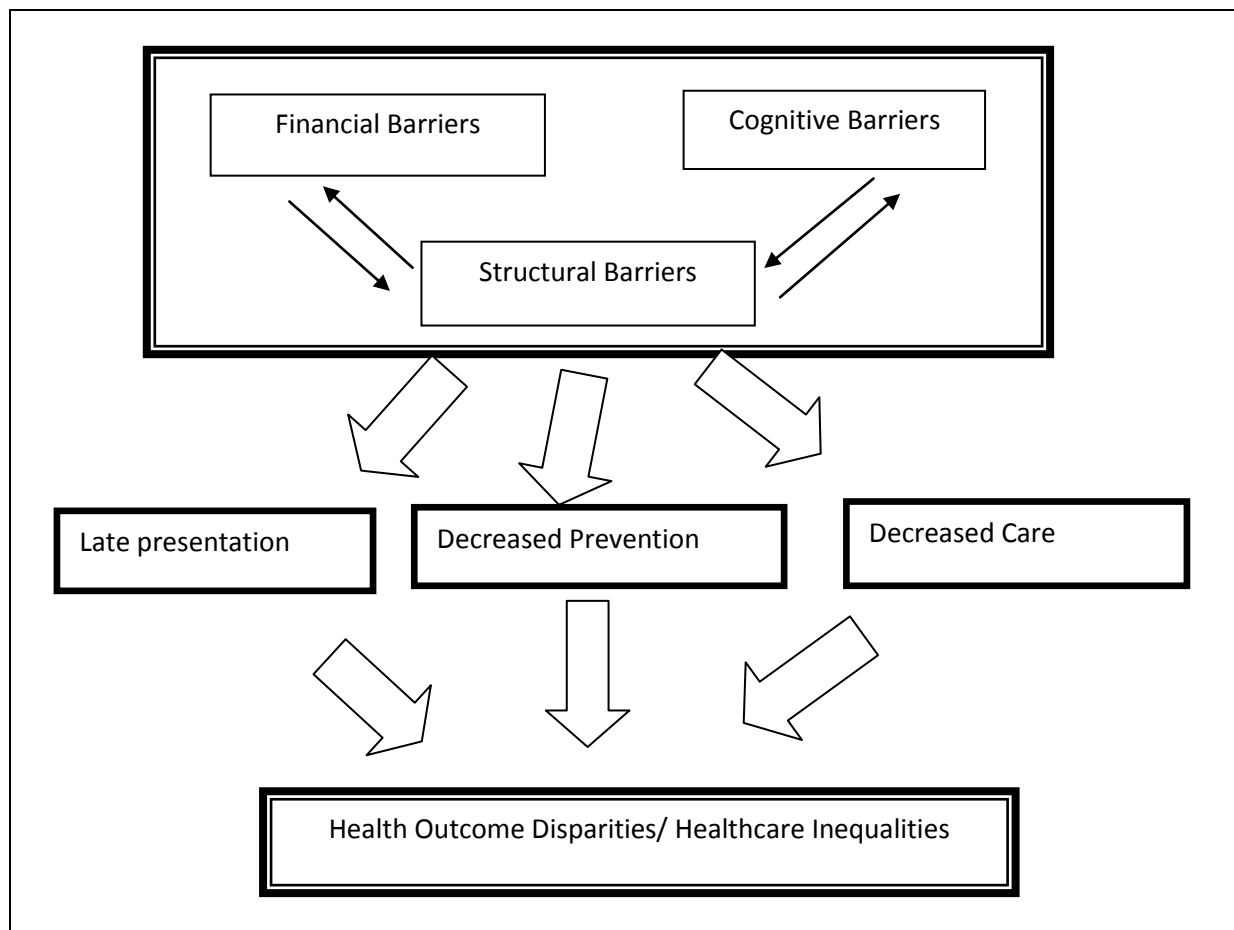
Similarly, the basic needs approach is people - centred and emphasizes health as a 'must have' for all human beings in order to attain a minimum standard of living. Given that people in informal urban settlements face competing needs, the notion of "survival imperative" is inevitable as people tend to be "strategic managers" of the few available resources. This in itself is a barrier to healthcare access and can be worsened if there are other hindrances within the healthcare system or individual/ household level.

The theories discussed above, together with other scholarly arguments place healthcare access at the centre of social development discourse and thus call for interventions to address existing barriers. In a world with over one billion people living in informal settlements, sustainable development will only be achieved if the needs of poorest and most vulnerable are addressed (UN, 2013).

This study therefore seeks to identify barriers that impede the urban poor living in informal settlement from accessing healthcare, so as to inform inclusive policy decisions. Such barriers may result from economic situation of the population given their employment status, it may be as a result of loopholes in the healthcare system or simply barriers related to how people perceive healthcare services.

## **2.6. Conceptual Framework**

This study adopted the "Health Care Access Barriers" (HCAB) model suggested by (Carrillo et al, 2011) to elaborate barriers to healthcare access in Kigali's informal urban settlements. This model suggests interplay of financial, cognitive and structural barriers which cause late presentation, decrease prevention and healthcare, hence inequalities in healthcare outcomes and leading to poverty. Below is an illustration of the HCAB model.



**Figure 1: Health Care Access Barriers (HCAB) Model by Carrilo et al, 2011**

For purposes of this study, financial barriers include the capability of people in informal settlements to afford health insurance and related costs such as insurance top-up / co-payment medicine, transport to health facilities among others. Structural barriers include the availability of healthcare services including healthcare personnel, medicine and medical equipment, infrastructure among others. Cognitive barriers combine the perceptions people have towards modern healthcare services including medicines vis-à-vis traditional medicine.

As illustrated in the HCAB model above, barriers to healthcare access can be financial, structural or cognitive and the interplay of these barriers can lead to delays in seeking health care services (delayed presentation) decreased prevention and decreased care. This results into nothing but disparities in health outcomes as reflected in the literature.

## **2.7. Summary of the literature and gap in knowledge**

In light of the existing literature, healthcare access determines one's capabilities to take care of their life and that of their households. Failure to access healthcare means deprivation of the most important freedom of living a healthy life. Barriers to health care access appear in different dimensions summarized into Financial, Structural and Cognitive barriers driven by the economic status, organization / structure of the health system and social construction of informal settlements. These barriers are intertwined as one may be a cause or effect of the other and are aggravated by the status of informal settlements, making the population susceptible to disease.

Whereas there is a lot of research on healthcare access for all and living conditions in informal settlements, there is generally less literature evaluating the level of access to healthcare access and related barriers (Tim & Stephanie, 2004). In addition, the literature is suggestive of increased efforts in potential access or supply of healthcare services such as increased availability of health facilities, training health workers among others. However, minimal efforts are vested in ensuring realized access or actual utilization of the healthcare services. As noted by some scholars, having health insurance may not guarantee healthcare access if other dimensions of the health system are not addressed.

# CHAPTER 3

## METHODOLOGY

### 3.1. Introduction

This chapter details how the research was conducted including design of the study, target population, sample size and sampling process. This chapter also explains the process and tools applied in investigating the study topic and analysis of data.

### 3.2. Design of the study

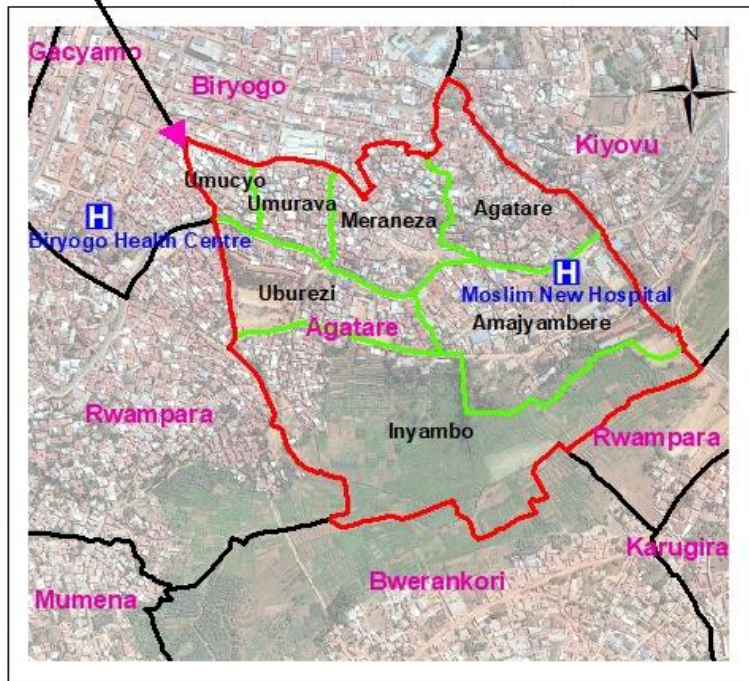
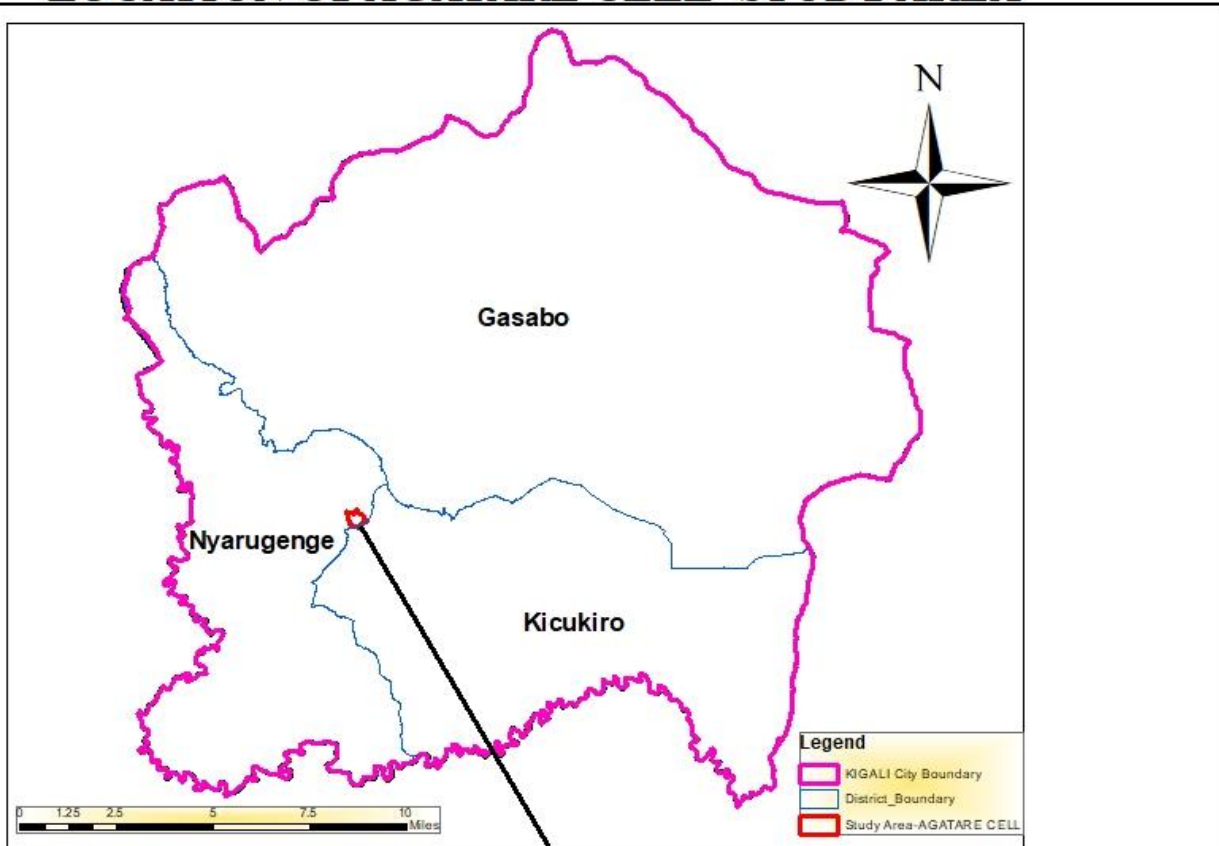
The study adopted a qualitative research design aimed to analyze barriers to healthcare access in informal urban settlements. Given the objective of this research, a qualitative design was suitable in identifying the nature and characteristics of the existing financial, structural and cognitive barriers to healthcare access. These barriers can best be identified through in depth discussions with respondents to understand their perceptions and experiences hence justifying a qualitative research design.

### 3.3. Study area

The study was conducted in Agatare Settlement, located in Nyarugenge sector, Nyarugenge district. The study area was selected purposively based on its close proximity to Kigali city centre and high population density whereby 84% of the population of Nyarugenge sector lives in Agatare settlement (MININFRA, 2015). Many residents in this area are attracted by affordable accommodation within a walkable distance to the city centre. This settlement houses over 5000 people living in over 1292 households with a population density of 211 people per hectare (MININFRA, 2015).

The study area is composed of seven villages namely Agatare, Amajyambere, Inyambo, Meraneza, Uburezi, Umucyo and Umurava. This settlement is surrounded by other informal settlements of Biryogo, Kiyovu and Rwampara. Just like many informal urban settlements, Agatare settlement is characterized by old and overcrowded informal housing with adequate sanitation facilities connected by footpaths. Below (Figure 2) is a map showing the study area with a breakdown of the seven villages that comprise this area and health centers that serve majority of the residents of Agatare cell.

## LOCATION OF AGATARE CELL- STUDY AREA



**Figure 2: Map of Agatare cell in Nyarugenge district**

**Source: Map by Researcher**

### **3.4. Population of the study and selection of informants**

The study population included people living in Agatare cell. This area has a total population of five thousand three hundred and two (5302) residents with high concentration in villages of Agatare, Amajyambere and Inyambo villages. The study population is part and parcel of the healthcare system and thus provided the needed information on barriers to healthcare access in the study area.

### **3.5. Selection of Informants**

Respondents/informants were selected purposively, thus justifying purposive sampling technique which deals with selecting experienced/knowledgeable respondents within the sample size, based on the researcher's judgment. The study's informants were classified into four categories:

1. **Community Health Workers (CHWs)**; selected by virtue of their residence in Agatare cell and their role as first point of health service delivery at community level. As such, these respondents are expected to have firsthand information and experiences on healthcare access barriers.
2. **Selected Household Heads from the community**; selected purposively with guidance from community health workers because of having visited a healthcare facility at least once within two weeks prior to data collection. I fixed a two weeks period to ensure the data are not very much affected by the recall bias.
3. The third category of informants; **Directors of Health centres** were selected based on their location within or nearby Agatare cell. Specifically, directors of the two health centers in the study area were selected based on the fact that they have an overview of the healthcare system, existing challenges or opportunities for healthcare access at health centre level. Secondly, majority of the population in the study area seek primary healthcare services at health centres, given their health insurance (Community Based Health Insurance).
4. The last category of informants included the **Executive Secretary of Agatare cell and Social Economic Development Officer (SEDO)**. These informants were selected based on their day to day coordination of social economic affairs at cell level and thus have reliable information on the status of healthcare access in Agatare cell including barriers to that effect.

### **3.6. Data collection process and tools**

Data was collected through Focus Group Discussions and interviews with key informants. Three focus group discussions were held with community health workers (seven CHWs per group). With support of the Social Economic Development Officer (SEDO) in Agatare cell, these discussions took place at the cell administrative office, where CHWs usually meet to discuss their weekly progress. As such, the focus group discussions were held in a convenient and familiar location which made participants feel at ease during the discussions.

Face to face interviews with selected households took place during day time, at the household's physical residence. Holding in depth interviews at one's home gave participants a sense of security and comfort to elaborate their responses. Given the busy nature of urban dwellers, interviews lasted between 20 and 30 minutes. Short face to face interviews with the directors of health centers were conducted in their offices given the busy nature of these informants. To ensure qualitative rigor in the data collection process, the researcher was guided by emerging themes (such as affordability, long waiting time among others) in the data collected on whether to conduct more interviews with the sample population or not, hence justifying theoretical saturation. To this extent, theoretical saturation was reached after interviewing nine households.

Data was collected using an interview guide as the main data collection tool, (See Appendix 1). This interview guide is composed of semi-structured questions in line with the three research objectives and it was used to guide focus group discussions and face to face interviews with key informants. This allowed in depth discussions of participants' personal experiences, attitudes and opinions. Observation was also applied in data collection whereby the researcher recorded data as observed in the field. In addition, audio recording was used to capture oral consent of key respondents.

To a small extent, a quantitative approach was used to collect secondary data on the status of health care access in informal urban settlements including enrollment to health insurance and available health facilities.

### **3.7.Data analysis and reporting**

Content analysis formed the basis for data analysis during this research study. Content analysis is commonly used in social science as a method of analyzing qualitative data with an aim of understanding of phenomenon under investigation (Hsieh & Shannon, 2005). A deductive approach was applied in analyzing data based on existing theories. Specifically, key concepts and themes were guided by the themes in the “Health Care Access Barriers” (HCAB) model suggested by (Carrillo et al, 2011).

Data was analyzed simultaneously with data collection and focus was put on patterns in observations through the entire data collection phase. Data analysis followed three systematic steps; Preparation, Organizing and Reporting. The preparation phase involved examining filed data in form of notes, audios, and texts. For every discussion or interview, responses were transcribed from audios to paper. The second phase involved systematic organization of the data and mapping it according to the research questions and objectives. A triangulation matrix was used to group similar responses and concepts. This tool was used to continuously analyze data which helped the researcher to decide on the saturation of data and decided on the completion of data collection. Attention was given to financial hardships/ affordability (financial barriers), availability (structural barriers) and perceptions/ acceptability (cognitive barriers) of healthcare services as per the themes suggested in the theoretical framework.

For purposes of data validity, responses from participants were compared to draw conclusions regarding barriers to healthcare access in the study area. The same themes formed the basis for data reporting as indicated in the next chapter and reflect the themes suggested in existing literature and theoretical framework.

### **3.8.Ethical considerations**

Since majority of people in informal settlements are referred to as the urban poor, the study was cognizant of the fact that the respondents at household level may be already stressed about their daily survival. In addition, it involved specific questions about barriers that households face in accessing healthcare, which could be sensitive especially when participants have prior negative experiences like losing a beloved one due to access barriers. The research therefore applied

ethics in handling respondents by informing them in detail about the research objectives and seeking their permission / oral consent prior to interviews.

To uphold the ethical principles of beneficence and confidentiality in this study, the researcher excluded respondents' identities from the oral consent recorded. In terms of managing data privacy and security, all electronic information such as interview notes were securely kept and accessed through a password known to only the researcher. Photographs and audio recordings were also securely kept on the researcher's phone, which is also protected by a password.

## **CHAPTER 4.**

### **RESEARCH FINDINGS AND DISCUSSION**

#### **4.1. Introduction**

This chapter deals with the presentation and analysis of data and information collected from the focus group discussions and key informant interviews conducted.

#### **4.2. Assess the status of healthcare access in Agatare settlement**

The status of healthcare access in the study area is presented in three ways; the status of health insurance coverage, the status of health facilities in the area and the status of community health services in the area.

##### **4.2.1. Status of Insurance coverage in Agatare settlement**

In terms of health insurance coverage, the study revealed that people in Agatare settlement subscribe to different forms of health insurance and pay annual premiums in that regard. Specifically, majority of the population are insured through CBHI - a financial protection mechanism where people pay annual premiums and have access to healthcare at all levels of the health system.

Data from desk review revealed that CBHI health insurance premiums range from Frw 2000 to Frw 7000 depending on one's social economic category commonly referred to as "Ubudehe" (MOH, 2015). The 2015 Health Insurance Policy requires that insurance premiums for the lowest social economic cluster (Ubudehe Category 1) be paid by a third party- Government of Rwanda since this group is comprised of the most vulnerable and poor. Other social economic clusters pay their annual premiums through the household head

The study revealed that majority (over 87%) of the people living in Agatare settlements are insured through the Community Based Health Insurance (CBHI). This portion of the population can access healthcare upon full payment of annual health insurance premiums for every member of the household. In addition, approximately 4% of the population in the study area fall in the first social economic category (Ubudehe 1) and thus do not incur direct expenses for healthcare services covered by CBHI.

The rest (9%) of the population is insured with other forms of insurance other than CBHI. These include public insurance providers like Rwanda Social Security Board (RSSB) which insures public/civil servants and Military Medical Insurance (MMI). Private insurance providers include UAP, Britam, Soras, SAHAM and Radiant among others. This portion of the population covers their health expenditures including annual insurance premiums and co-payments through their employers or privately. Annual premiums are paid according to the insurance policy/plan of the insurance providers based on agreement with employers. Table 1 below shows the status of health insurance enrollment in the study area.

**Table 1: Status of Health Insurance Enrollment in Agatare cell; FY 2019/2020**

Village	Total Population	CBHI/MUSA Enrollment		Enrollment to Insurance types	
		No. of residents	% of Total population	No. of residents	% of Total population
Agatare	1151	1033	90	97	8
Amajyambere	1003	887	88	79	8
Inyambo	846	774	91	53	6
Meraneza	814	745	92	44	5
Uburezi	575	505	88	57	10
Umucyo	399	301	75	63	16
Umurava	514	438	85	50	10
Total	5302	4683		443	
<b>Average</b>			<b>87%</b>		<b>9%</b>

**Source: Agatare cell database**

Statistical evidence shows that over 96 % of the population is insured either through CBHI or other insurance types whereas the remaining 4% of the population is covered by government. Three villages (Meraneza, Inyambo and Agatare) have over 90% CBHI enrollment. Generally, one can comfortably conclude that the status of health insurance enrollment in the study area is optimistic. Given that people in informal settlements are characterized as poor, it is intriguing to discover high health insurance enrollment rate for this study area.

#### **4.2.2 Health Facilities in Agatare settlement**

The study revealed that there is one Health Centre within the geographical boundaries of the study area. This Health Centre is called Rwampara Health center also locally known as the Moslem hospital, located in Amajyambere village.



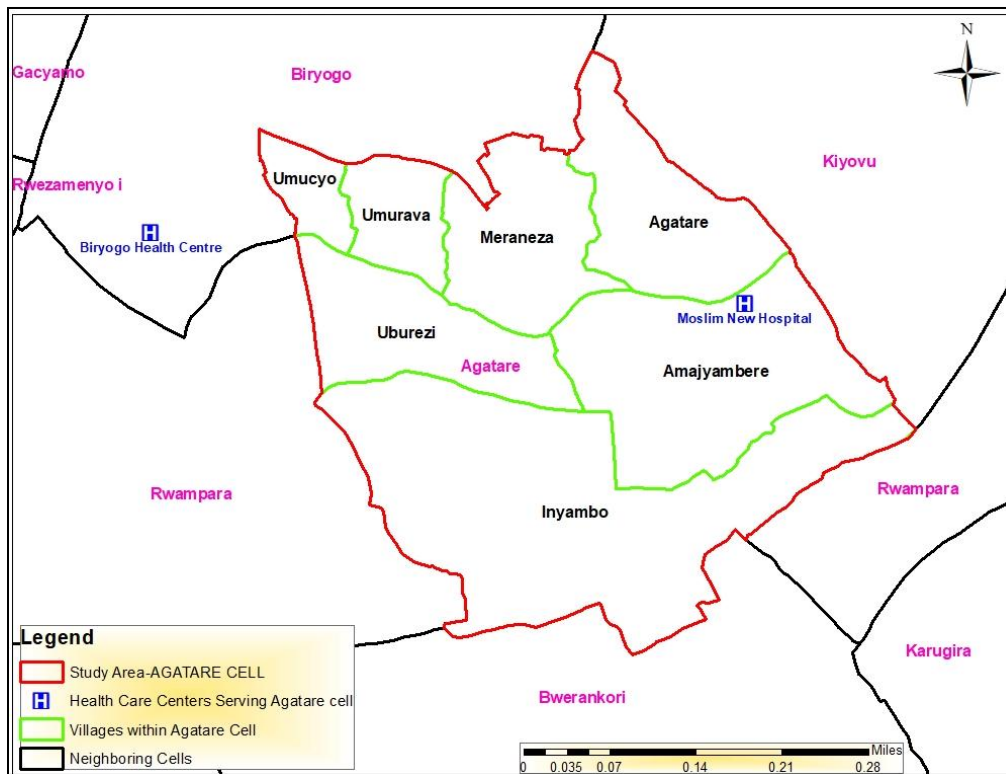
**Figure 3: Rwampara Health center located in Agatare cell, Nyarugenge District**

**Source: Pictures taken by Researcher**

Figure 3 above shows the main entrance of Rwampara health centre (to the left) and the reception area (to the far right) with some patients waiting to be served. This health centre is located alongside the road connecting Agatare to Kiyovu sector and thus easily accessed by people using public transport.

In addition to Rwampara Health Centre, the study area is also served by another health centre called Biryogo health Centre, commonly referred to as “Kwa Nyiranuma” located in Biryogo cell, close to Agatare cell. Both health centres are located within close proximity to the population within the study area. Majority of the population in the study area seeks healthcare at the two public health facilities that is, Rwampara health centre and Biryogo health centre. This is primarily because majority are insured with Community Based Health Insurance.

More to having health insurance and short travel distance, the study revealed that motivation to go to a health facility is dependent on the area topography and relationship with the healthcare personnel at a particular health facility. Below is a map showing the study area with the two health centres of Rwampara and Biryogo.



**Figure 4: Map showing Health centres serving the study area**

**Source: Map by Researcher**

Figure 4 above shows the two health facilities serving all the seven villages of Agatare cell and neighboring areas. Rwampara health centre also known as “Muslim New Hospital” serves all the seven villages that constitute the study area. However, given the proximity of Biryogo health centre, majority of the residents from neighboring villages such as Umucyo, Umurava, Uburezi and Meraneza prefer to go to this health centre for healthcare.

In addition to the two public health facilities in Figure 4, Agatare settlement has two private clinics and three pharmacies where people go to seek healthcare and buy medicine respectively. However, it was noted that majority of participants go to the health centres (public health facilities) given that majority of the population in the study area are insured through CBHI which only partners with public health facilities. All health facilities in the study area are within a range of 5 - 20 minutes walking distance and offer healthcare services to people living in Agatare cell as well as neighboring settlements.

### 4.2.3. Status of healthcare at community level

In terms of health services at village level, Agatare settlement has a total of twenty one (21) Community Health Workers (CHWs) from all the seven villages that comprise the study area. Each of the seven villages has three community workers (one male, two female) that offer voluntary healthcare services at village level. These CHWs carry out sensitization regarding healthy living, CBHI enrollment and diagnose and treat diseases like malaria, pneumonia, and diarrhea in children under-five years of age. CHWs also treat malaria in adults, provide care to women during and after pregnancy and also provide care to newborn children. Respondents acknowledged the role of community health workers in facilitating healthcare access at village level. As noted in the interviews with selected households, one respondent commented;

*“I approach a CHW for advice and medicine almost every month because my children are often sick of malaria.”(Mother of 4, Single mother, Inyambo village)*

Since CHWs are fellow residents, they are easy to reach for basic healthcare services. Patients that cannot be handled by a community health worker are referred to visit the health center or private clinic depending on their insurance plan or financial capacity

### 4.3. Barriers to health care access in Agatare settlement

Barriers to healthcare access in the study area were categorized into three major themes; 1) Financial barriers, 2) Structural barriers, and 3) Cognitive barriers. These themes are discussed separately but are interconnected as one barrier is a cause or effect of the other. Below is a table summarizing themes and sub themes that emerged from the research study.

**Table 2: List of Themes and Subthemes from data**

Theme	Sub themes
Financial Barriers	✓ Affordability ✓ Source of income/Nature of jobs ✓ Competing needs
Structural Barriers	✓ Availability ✓ Waiting time ✓ Vehicular access
Cognitive Barriers	✓ Attitude towards modern and traditional medicine

### 4.3.1 Financial barriers to Healthcare access in Agatare settlement

Generally, the study revealed major financial barriers in affording annual health insurance premiums and buying medicine from private pharmacies. This is partly attributed to the nature of jobs and competing priorities faced by the people living in the study area.

**Affordability:** In terms of affordability (sub theme 1), the study revealed that residents in Agatare cell find difficulties in affording healthcare, including insurance premiums, co-payments and medicine. Due to financial hardships, respondents revealed that some people chose to stay home with hope that they will heal naturally or visit a community health worker:

*“I can’t go to a health facility without money.....If I don’t have the money, I visit a community health worker. If she doesn’t have medicine, I have no option but to go back home..... sometimes, I borrow from my neighbor and pay back when I get the money...” (Female, Mother of 5, Agatare village).*

For this respondent, there is a high likelihood of not visiting a health facility when sick due to difficulty in affording co-payments. Similarly, one may spend more days waiting on friends and relatives for financial support which may worsen their health condition and worse still lead to death. In addition, some respondents expressed difficulty in getting money to buy medicine which is not covered by the insurance or is simply out of stock at the health facility – another financial barrier to healthcare access;

*“I wish we had a pharmacy for us on CBHI, buying from these private pharmacies is expensive, “If I don’t have the money, I leave the medicine or wait until it is available at the health centre.” (Head of household, Amajyambere Village)*

It is evident that people in the study area find difficulties in affording medicine from private pharmacies which are expensive. Failure to get medicine not only discourages people from going to health facilities but also implies that people continue suffering from disease without medicine.

With the exception of a few respondents, there are minimal barriers with transport fees since the health facilities are within a walkable distance from their homes. However, in case of referral to district or referral hospital, transport fees proved to be a barrier to healthcare access as mentioned by one of the respondents;

*“When my daughter was expecting her twins, she got complications and couldn’t breathe well....we were given a transfer to Masaka hospital in Kicukiro district, but that place is far, I did not have transport; I had to plead with the nurses to transfer her to CHUK which is nearby” (Female, elderly, Inyambo village).*

Although health facilities in the study area are within close proximity, transport issues rise in case of transfer to other health facilities. Since medical transfer is applied in cases that cannot be managed at health centre level, failure to get transport is a serious barrier that limits one’s capability to get the necessary healthcare services.

**Nature of jobs/source of income:** Most respondents attribute their financial difficulties to the low paying, informal and irregular nature of their jobs. Common economic activities highlighted include mobile money vending, motorists, trade in food stuffs and spare parts, tailors, casual laborers at construction sites among others. The income generated from these economic activities is not sufficient to pay for healthcare including annual insurance premiums, co-payment for medical bills and buying medicine. This is evident in interview excerpts;

*“I don’t have a job, I survive on temporary jobs like washing clothes for others..... Paying CBHI premiums is a problem.... (Mother of 4, Single mother, Inyambo village).*

**Competing needs:** The study revealed that people in the study area are preoccupied with the search for money to meet their day to day household needs such as paying rent, buying food, paying school fees and less attention is directed to healthcare.

*“Life in Kigali is tough with a lot of needs.....you have to pay rent, pay medical insurance, buy food, pay school fees....., I can’t pay for medical insurance before paying my rent. Sometimes I pay in medical insurance installments but that is a problem since I can’t get services unless until I pay full mount (Youth, Student, Amajyambere village).*

According to this respondent, there are more urgent household demands that need to be met and very little is left for healthcare. In addition, some households choose to pay for health insurance in small installments, simply because there are more pressing needs. Unfortunately, one cannot access healthcare before paying their full premium, making it difficult to access healthcare.

### 4.3.2. Structural barriers to Healthcare access in Agatare settlement

Overall, structural barriers were identified in two subthemes i.e. availability of services (medicine, healthcare personnel, Infrastructure) and Waiting time.

**Availability of services:** A general response from all respondents is the irregular availability of medicine at health facilities. Healthcare providers expressed concern regarding financial hiccups caused by delayed payment by insurance providers. As such, availing all necessary healthcare services becomes a challenge:

*“Medicine is a problem here...some patients go without medicine, we ask them to buy from private pharmacies.....We have borrowed medicine from the district pharmacy until we can borrow no more. The system is centralized, we have to wait for months to get paid by RSSB.....It is injustice. Why does someone pay their insurance premiums and fail to get medicine.....don't you see it's a problem?” (Healthcare provider, Rwampara Health centre, Amajyambere village).*

Due to lack of medicine at health facilities, some people opt for self-medication than going to the health facility.

*“I don't have time.....If I have headache, I buy pain killers and life moves on”...it doesn't make a difference going to the health facility when you already know the available medicine” (Youth, Student, Amajyambere village).*

From the above excerpts, it is evident that lack of medicine at health facilities is a critical barrier to healthcare access in Agatare cell. This barrier leads to financial hardships since the people have to divert their limited resources to buy medicine from private pharmacies. Also, the consequence of self-medication / direct purchase of medicine from pharmacies puts people at risk of wrong diagnosis and related effects. This barrier extends to community health workers as they sometimes experience stock outs and have to wait for new stock from the health facilities something that limits access healthcare services.

In addition to lack of medicine, some services such as dental services, ophthalmology and radiology among others are not available at the health facilities in the study area. As such, people at times are hesitant to seek healthcare services because of the missing services, equipment and infrastructure;

*“They don’t have some services. If I have dental issues, I just go there to get a transfer”  
(Youth, Head of household, Meraneza village).*

For this respondent, going to the nearby health centre is just a formality to enable them get a transfer to another health facility, implying a general lack of access to some healthcare services at health centres where majority of the people in the study area go for healthcare.

The study also revealed a general desire for more services, healthcare staff and infrastructure to meet the demands of the community. One of the healthcare providers noted

*“Only one health centre has maternity services in this area but has only two rooms for hospitalization. “We have to transfer some cases to the district hospital, simply because we don’t have space”...Imagine we have only 12 staff that alternate day and night shift plus weekends....we receive over two hundred patients a day and majority come during evening hours when they leave work; we try our best but it’s very exhausting”  
(Healthcare provider, Rwampara Health centre, Amajyambere village).*

This statement is indicative of overstretched utilization of the few available infrastructure and healthcare workers which affects the quality of healthcare provided.

**Waiting time:** The study revealed that waiting time is one of the structural barriers faced by people in Agatare settlement. With the majority of the residents using CBHI, they have to seek health care at the two available public health centres.

*“A lot of time is spent in verifying validity of insurance. “There are only two staff who verify over 200 patients in a day...even if the nurses are available, they cannot attend to people whose insurance is not verified.” (Female, Healthcare provider, Biryogo cell).*

As such, these facilities get overcrowded with patients, thus causing long waiting lines and time spent while waiting for health services.

*“I usually spend 3 to 6 hours at the health facility....the lines are long but you have to be patient.”(Female, Elderly, Meraneza village)*

In a nutshell, the fear for lost time at the health centre waiting for services (consultation, laboratory, medicine) is a crucial structural barrier highlighted by households in the study area.

**Vehicular access:** Despite close proximity of health facilities, findings from field observations and transect walks revealed that majority of the houses in the study area are accessible by footpaths which limits access to vehicles like ambulances in case of an emergency. This is partly

attributed to the informal and unplanned nature of the houses which makes vehicular access a challenge. Below is a picture of some access foot paths identified during transect walks within the study area.



**Figure 5: Footpath in Inyambo village**

**Source: Photo by Researcher, September 2019, Inyambo village, Agatare**

Figure 5 above shows one of the footpaths used by people in Inyambo village. As shown in the picture, this footpath is dilapidated and cannot be accessed by any vehicle. Given the hilly nature of the area, it is clear that accessing healthcare in this area may be a challenge especially for the elderly and expectant mothers who find difficulties in climbing hills. In addition, there are related risks due to the slippery nature of the area especially during rainy seasons.



**Figure 6: Foot paths in Amajyambere Village, Agatare Cell**

**Source: Photo by Researcher September, 2019, Amajyambere Village**

As seen in figure 6 above, both footpaths connect Amajyambere village to the main tarmac road but lack vehicular access. The first foot path (to the left) is improved but cannot be navigated by a vehicle or people with disabilities. Similarly, the footpath (to the right) cannot be accessed by vehicles and is next to open sewage, another health risk for the residents in this area

Furthermore, in case of emergency cases that require an ambulance or any other vehicular means of transport, people living in this area cannot access such services. Patients have to be carried/ lifted to the nearest access point to access a motorcycle, vehicle or ambulance for emergency cases.

### **4.3.3 Cognitive barriers to Healthcare access in Agatare settlement**

The study revealed that people have mixed beliefs/ attitudes towards modern and traditional medicine. There is however a general belief that some diseases cannot be healed by modern medicine and thus call for intervention of traditional medicine. Such diseases highlighted include skin allergies commonly referred to as “amahumane”, witchcraft (amarozi), Sinuses, paralysis and joint pains among others:

*“The problem is that you people don’t accept traditional medicine...but people take it and they get healed. We know traditional medicine that you can plant it in your compound and take it regularly and get healed....“I have health insurance but can’t waste time going to a health facility when I know the disease needs traditional healing....let me ask...can modern medicine treat “nerves? Imitsi?” (Male, Traditional healer, Amajyambere village)*

Below are pictures of some traditional medicine used by some residents in the study area.



**Figure 7: Traditional medicine found in study area**

**Source: Picture taken by Researcher, September 2019, Agatare Village**

Figure 7 shows some of the traditional medicine displayed under the sun, waiting to dry and be ground into powder for use. According to the respondents, traditional medicine can be planted in one’s home and harvested for use until the disease heals. Some medicine can also be got from nearby bushes and preserved for future use.



**Figure 8: Cayenne pepper used as traditional medicine**

**Source: Picture taken by Researcher, September 2019, Agatare Village**

Figure 8 shows Traditional medicine, ready for use. This medicine (cayenne pepper), according to the respondent heals a variety of diseases including nerve pains.

Some people believe that modern medicine treats the disease faster than traditional medicine and thus give preference to visiting health facilities or seeking help from a community health worker, others. On the other hand, some respondents admitted that they first visit health facilities to seek for diagnosis and treatment and later seek services of traditional healers if the conditions persist.

*“I don’t believe in modern medicine.....one lady was paralyzed, she went to all health facilities in Kigali but did not get healed. She only got fine after taking traditional medicine...” (Female, Single mother, Meraneza village)*

Based on previous experience, some respondents revealed bias towards services provided by public health facilities at grassroots. Some claim that they get the same diagnosis and same medicine for every visit, yet they continue to fall sick, others believe that some diseases cannot

be diagnosed by health centres and thus need referral or visit private clinics. One of the respondents reported;

*“I took my daughter more than three times to the health center, got medication but never healed, the disease was later discovered at the district hospital upon referral/ transfer”*  
(Female, elderly, Inyambo village).

#### **4.4. Discussion and Summary of Findings**

Emerging themes from the study findings confirm that the extent to which a population 'gains access' depends on 'financial, organizational and social or cultural barriers that limit the utilization of services' (Gulliford et al, 2002). In addition, barriers identified are a manifestation of the many physical, material and social barriers faced by poor and vulnerable households which limit their ability to access healthcare services (Joseph M Macarthy, 2018)

##### **4.4.1 Status of healthcare access in Agatare cell**

This study adopted Jacobs et al (2012) description of healthcare access as geographical/physical access, availability of services, affordability and acceptability of healthcare services. In terms of geographical access to healthcare, the study area is distributed with two public health centers, two private clinics and two pharmacies all of which are within a walkable distance. A total of 21 community health workers also facilitate healthcare access at village level. In regards to financial access, affordability of services in the study area is optimistic with majority (92% of the population in financially protected in terms of healthcare expenditures given the high insurance coverage. This is contrary to Collier et al, (2009) argument that majority of people in informal settlements lack health insurance.

Generally, the status of healthcare access in Agatare settlement is favorable but limited by some barriers. Reflecting on Andersen (2014)'s dimensions of health care, the availability of health insurance to majority of the population and close proximity of healthcare providers is a clear indication that the study area is braced with potential access to healthcare. However, the realized access is limited by prevailing barriers as discussed in the sections below.

#### **4.4.2. Financial Barriers**

According to the study findings, financial barriers proved to be a major barrier to healthcare access. Particularly, the inability to afford medicine from private pharmacies and pay co-payments/top –up limit access to healthcare. This is in accordance with Carrilo et al (2011)'s argument that financial barriers to health care access arise in vulnerable populations when patients are uninsured or underinsured, thus impedes them from meeting their medical bills (Siân George et al, 2018).

The failure to access medicine also implies that having health insurance alone does not necessarily guarantee access to healthcare service due to limitations with insurance cover and high co-payments (E Devoe et al., 2007) which the insured have no financial capacity to cover (Raiz, 2006). This barrier also doubles as a structural barrier given that health providers are not in position to avail the medicine when needed, thus affecting availability of healthcare. In addition, the failure to afford transport to health facilities during referral /transfers as highlighted by some respondents also leads to delays in accessing healthcare (Varela et al., 2019) which might result into preventable death.

The low paying jobs, amidst competing demands also puts people in a dilemma of choosing between healthcare and other basic needs. This is consistent with the ‘survival imperative as proposed by Stajduhar et al (2019) whereby people prioritize daily survival to healthcare access or act as “strategic managers” in negotiating their livelihood outcomes (Tincani, 2015). In addition, the low paying and irregular jobs partly explains why most of the residents in Agatara settlement subscribe to Community based health insurance given that the annual premiums are low/subsidized.

#### **4.4.3. Structural Barriers**

Availability of services appeared to be the biggest barrier to healthcare access in the study area. As per the study findings, it is evident that the scarcity of medicine and limited number of staff do not match healthcare needs of the study area. Such barriers are typical of Supply side barriers as proposed by Hout et al (2019) which stream from the providers of healthcare services and the healthcare system as a whole.

In addition, excessive waiting times also limit healthcare access as people choose not to go to health facilities for fear of losing time or choose to go during evening hours (after work). This however further aggravates the situation as it leads to overcrowding and overwhelming workload for the few available healthcare staff, thus compromising the quality of care. As highlighted in the study findings, such delays are partly attributed to shortage of healthcare professionals and heavy workload (Hout et al., 2019) due to the big population size. Consequently, people resort to other alternatives such as traditional healers, self-medication by buying medicine directly from pharmacies (Hout et al (2019)).

Findings also revealed that people go to a specific health facility depending on how they were treated regardless of its close proximity. This is in line with Joseph M Macarthy (2018)'s argument that previous bad experiences during healthcare access are also considered as a structural barrier to healthcare access. Although the travel distance in the study area was found to be short, limited vehicular access impedes movement especially when one is too ill or requires an ambulance. This barrier can influence whether residents attempt to go to health facilities for healthcare services or not(Carrillo et al., 2011).

#### **4.4.4. Cognitive Barriers**

Based on the study findings, the mixed beliefs and attitudes towards modern medicine versus traditional medicine is a confirmation of the argument that use of healthcare services is influenced by mixed beliefs which is a combination of attitudes, values and knowledge towards healthcare (Andersen & Davidson, 2014).

As revealed by the study findings, the belief that some diseases cannot be healed by modern medicine is consistent with scholarly arguments that beliefs impede healthcare access given the patients' dogmas about diseases and medication (Banerjee et al, 2012) which affects their demand for healthcare services. This is also evident in respondent's attitude that some modern medicine received at health facilities does not heal their diseases, unless intervention of traditional medicine is sought.

## CHAPTER 5

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1. Introduction

This chapter presents the summary of findings, draws conclusions and makes recommendations in relation to the findings of the study. This chapter also gives highlights of the researcher's suggestions of areas for future studies that others researchers could investigate.

#### 5.2 Summary of the study

The study aimed at identifying barriers to healthcare access in informal urban settlements, focusing on Agatare settlement in Nyarugenge sector, Nyarugenge district. The researcher reviewed literature related to the subject matter of the study and attempted to discuss the concept of healthcare access at global level and national level. The Health care access barriers model was adopted to identify healthcare access barriers faced by people living in the study area. As such, the financial, structural and cognitive barriers identified are in line with the HCAB model used. Study respondents were purposively sampled and provided information as per the research interview guide. Overall, the study findings were categorized in three themes; financial barriers, cognitive barriers and structural barriers. As highlighted in the study findings, the combination or interplay of all these barriers causes inequalities in healthcare access thus leading to poverty.

Generally, the status of healthcare access in Agatare settlement is favorable but limited by some barriers. Majority (over 87%) of the population in Agatare settlement subscribes to Community Based Health Insurance (CBHI) and 4% of the population lies in the first social economic category whereby healthcare expenditures for this category are fully covered by government. This implies that keeping other factors constant, a whole 92% of the population in the study area is financially protected from catastrophic health expenditures. The study area is served by both public and private health facilities located within a walkable distance and a total of 21 community health workers also facilitates healthcare access at village level. Despite the financial protection and even geographical distribution of healthcare facilities within Agatare settlement, several challenges still exist.

Financial barriers were identified in terms of affordability of co-payments and medicine from private pharmacies. Despite the high proportion of financially protected population, people in the study area expressed financial hardships in paying for healthcare services, buying medicine from private pharmacies and transport fares in case of transfer to the district hospital or beyond. This is partly attributed to the informal yet irregular low paying jobs done by majority residents in Agatare settlement.

In addition, prioritization of healthcare over other needs is still low among the people of Agatare settlement as the struggle to survive for the day overrides the need for healthcare services. Some respondents expressed the fear to spend time at a health facility instead of making money while others face a financial dilemma to meet all competing needs such as food, shelter/rent thus putting healthcare needs like insurance on a waiting list. It is therefore difficult for such people to access healthcare when needed.

Structural barriers proved to be the major impending factors that limit healthcare access in Agatare settlement. These barriers include limited availability of medicine at health centers whereby patients have no option but to buy from private pharmacies which are expensive. In addition long waiting hours and overcrowding at health facilities limits healthcare access as some people choose to directly buy medicine from pharmacies, use traditional medicine or simply remain home. Healthcare providers expressed challenges in few staff and limited infrastructure which cannot accommodate many patients at times, leading to unnecessary referrals. In addition, delays in re-imburements by health insurance providers were identified as a major barrier as hospitals face stock-out of medicine due to insufficient funds.

The study also revealed a combined use of modern medicine with traditional medicine due to beliefs that some diseases are cured by modern medicine while others are cured traditionally. This is a serious barrier to healthcare access because it leads to delayed presentation at health facilities as people spend time speculating about traditional medicine without clear diagnosis.

### 5.3. Conclusions

Following the interpretation and analysis of data collected during the course of this study, the researcher draws the following conclusions.

1. Informal urban settlements residents in Agatare cell face more financial and structural barriers to health care access. This conclusion is based on the survival nature of informal settlements whereby people negotiate their needs amidst scarce resources and insufficient health facilities and personnel despite the dense population in informal settlements
2. Findings of the research also confirm an interplay of financial, cognitive and structural barriers leading to inequalities as suggested by the “Health Care Access Barriers” (HCAB) model. As proposed by Amartyr Sen, a person’s capabilities are enabled by the political freedoms, economic facilities and social opportunities at their disposal.
3. The failure to access healthcare by people living in informal settlements has a direct impact on their capabilities. For people living in informal settlements, such barrier to healthcare access further plunge them in a cycle of poverty due to illness and inability to engage in economic activities. Further still, the population density in informal settlements is a major risk for infectious diseases such as cholera, something that requires quick and easy access to healthcare free from barriers.

In a nutshell, despite efforts to increase financial access and geographical access through insurance enrollment and availability of health facilities at grassroots respectively, there are still major barriers that limit access to healthcare services. There is an interplay of financial barriers which limits affordability of healthcare and related services, organizational barriers characterized by inconsistent availability of medicine at health facilities, few healthcare staff causing unwanted delays at health facilities and cognitive barriers encompassing combined use of both traditional and modern medicine.

Of all the barrier identified, structural barriers emerged as the leading cause for inaccessibility to healthcare in informal settlements. The continued existence of such barriers may pose major setbacks in the hard gained milestones towards universal health coverage as people get discouraged to pay for health insurance and resort to other alternatives such as self-medication or traditional medicine.

## 5.4. Recommendations

In light of the research findings and analysis, the researcher recommends that more efforts should be vested in addressing existing structural barriers as these proved to be the main challenge and also result into financial and cognitive barriers. Specific recommendations include the following:

1. First of all, there is a critical need to avail sufficient medicine at health facilities to match the needs of the high population in informal settlements. This will not only motivate people to seek healthcare services but also reduce out of pocket expenditures while buying medicine from expensive private pharmacies.
2. Secondly, the number of healthcare personnel in informal settlements needs to be increased in order to match the dense population and frequent visits to health facilities. Health facilities in informal settlements should be given special consideration in terms of equipping them with sufficient infrastructure such as maternity observation rooms, dental services, among others.
4. The communities in informal settlements need to be sensitized about healthy living and the need to prioritize healthcare despite meagre resources and competing needs. Further sensitization is also needed for mind-set shift towards use health facilities to diagnose diseases instead of relying on traditional medicine without clear quality controls.

The research study was purely descriptive of people's perceptions and experiences regarding barriers to healthcare access. Based on the findings of the study, it is recommended that further studies be conducted to quantify the socioeconomic impact of these barriers on people living in informal settlements. Specifically, focus should be put on exploring structural barriers and quantifying the existing gap.

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## APPENDIX 1: DATA COLLECTION TOOLS

**Table 3: Guiding questions; Interviews and Focus Group Discussions.**

<b>Objective 1 of the study:</b> Identify financial barriers to access healthcare services in informal urban settlements.	
<i>To be answered by Community health Workers</i>	1. How to people in Agatare cell get money to pay for healthcare services?
	2. How do people in Agatare cell pay for healthcare services? a) Is it through Health Insurance? b) Do their pay directly out of pocket? c) Is it through friends/ Family/ neighbours? d) Does government (cell or sector) pay for them?
	3. Why are people reluctant to seek healthcare services? Mention at least three reasons a) Too busy, no time to visit a health facility b) Lack of insurance c) Lack of money to top up insurance d) No transport fare e) No one to leave at home when visiting a health facility f) Delays at the health facility
	4. Describe the nature of people in Agatare settlement (e.g. what do they do for a living?) a) Casual laborers b) Builders c) Prostitutes d) Business owners (e.g. restaurants, saloons) e) Market vendors f) Street vendors g) Beggars h) Barbers i) Students
<i>To be answered</i>	5. How do you get money to pay for insurance or healthcare services when you

<i>by selected Households</i>	fall sick?
	6. The last time you fell sick, who helped you pay for the medical bills or medicine?
	7. Do you receive/ expect to receive support in paying for your health insurance? 8. If yes, who (usually) pays? a) Relatives/ Friends b) Cell c) Church/Religious group d) NGOs e) Others
	9. The previous time somebody was sick at home, where did you go? Why did you choose that facility?  a) Rwampara health centre b) CMS Biryogo (Kwa Nyiranuma) c) MBC Hospital d) Visited a CHW e) Went to a pastor? f) Abavuzi ba Gakondo / abagorozi g) Self-medication (local herbs? Or medicine from the pharmacy?) h) No treatment, waited for natural healing
	10. When you think of taking a sick family member to see a doctor, what challenge comes to your mind?  a) Money for co-payment/ top up on health insurance b) Money for consultation c) Money for transport d) Leaving your job/ business e) Money for medicine f) Not having somebody to remain at home? g) Loosing time/money while at the health facility

<b>Objective 2 of the study:</b> Investigate structural barriers to health care access in informal urban settlements	
<i>To be answered by leadership of Agatare cell</i>	11. Which reasons do people in Agatare cell give for not seeking healthcare?
<i>To be answered by head of health centers in Agatare cell</i>	12. How do you manage receiving many patients? .....
	13. Why do people sometimes choose to buy medicine directly from drug stores/pharmacies instead of going to the health facility?
<i>To be answered by Households</i>	14. How far (time) is the health facility from your settlement? .....
	15. How do you access healthcare? Is it home-based? Do you make appointments?
	16. Which health facility (e.g. health centre. Clinic, hospital) do you often visit when sick? a) Rwampara health centre b) CMS Biryogo (Kwa Nyiranuma) c) MBC Hospital d) Others (give details) Why? a) It is closer to home/ workplace b) The service is faster c) The healthcare providers have good customer care d) I have no option (it's the only health facility in the area) e) Others (give details)
	Are you satisfied with the services at the health facilities you visit? If no, Why?
<b>Objective 3 of the study:</b> Identify cognitive barriers to healthcare access in Informal urban settlements	

<i>To be answered by Households</i>	17. Between traditional medicine and modern medicine what's your preferred choice? Why? .....
	18. Are there any other means of healthcare except health facilities? .....
<i>To be answered by Community Health Workers</i>	19. How often do people in your village seek your help as a community health worker?
	20. Apart from health facilities in Agatare cell, where else do people go for healthcare? Why? a) Traditional healers b) Church c) Others

## APPENDIX 2: DATA ANALYSIS TOOL

**Table 4: Matrix of identified financial, structural and cognitive Barriers to healthcare access**

Study Population	Financial Barriers Identified	Structural Barriers Identified	Cognitive Barriers Identified	Observations (from the Researcher's perspective)
Community Health Workers				
Selected Households				
Health centre leadership				
Agatare cell leadership				
Other comments:				



**Recommendation letter of Mrs. Rose KANYANGE**  
**To Nyarugenge and Gasabo**

The school of Governance of the College of Arts and Social Sciences, University of Rwanda offers a degree of **Master of Arts in Development Studies**. As part of master's degree requirements, students have to conduct a research and write a thesis on an area of their interest.


During the data collection, students require the assistance from the organisations relevant to their chosen area of study. Students' studies are expected to have a wide range impact not only on the growth of academic knowledge but also on the development of policies and practices throughout the country.

In this regard, allow me to introduce **Mrs. Rose KANYANGE** whose research is entitled on "**Addressing healthcare access barriers in Kigali's informal urban settlements.**"

She will provide you with details about his/her research proposal and the needed assistance. Any assistance rendered to him/her is highly appreciated. If you need further information, please do not hesitate to contact me on telephone: 0782781799 or e-mail: [iyakin7@gmail.com](mailto:iyakin7@gmail.com).

Thank you for your cooperation.

Sincerely

  
**Rev. Dr. Innocent Iyakaremye**  
Acting Dean, School of Governance



CC

Acting Postgraduate Coordinator, School of Governance

NYARUGENGE DISTRICT  
Central Secretariat  
Date of Reception: 16 AOUT 2019  
Signature: [Signature]

16<sup>th</sup> August 2019

The Executive Secretary  
Nyarugenge Sector  
Nyarugenge District

SECIEUR NYARUGENGE  
Date of Reception: 16/08/2019  
Signature: [Signature]

Dear Sir/Madam,

**RE: REQUEST FOR SUPPORT DURING RESEARCH.**

My name is KANYANGE Rose, a Masters student of Development Studies from the University of Rwanda, School of Governance, College of Arts and Social Sciences. As part of master's degree requirements, I am pleased to inform you that I will be conducting research on "Identifying Barriers to Healthcare access in informal urban settlements" and the selected study area is Agatare cell located in Nyarugenge sector, Nyarugenge district.

The purpose of this letter is to seek your guidance and support during the research process. With your kind permission, I intend to conduct interviews and focus group discussions with Community Health Workers (CHWs), Health facilities and local leadership of Agatare cell. It is in this regard that I request your good office to facilitate me with the necessary support during this process. The findings of this study will purely be used for academic purposes. Attached is a recommendation letter from the University of Rwanda for your kind reference.

I look forward to your kind support and collaboration.

Sincerely,

[Signature]

KANYANGE Rose

Cc:  
Director of Health Unit, Nyarugenge District  
Executive Secretary, Agatare cell, Nyarugenge sector.



Q 16/08/2019  
MUKAMISHA Jerome  
El S Rugege