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Surveying Access to Healthcare in Kisumu and Siaya Counties, Kenya

Quinn Alsheimer
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Surveying Access to Healthcare in Kisumu and Siaya Counties, Kenya

Quinn Alsheimer

Kenya: Urbanization, Health and Human Rights

Spring 2018

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ABSTRACT

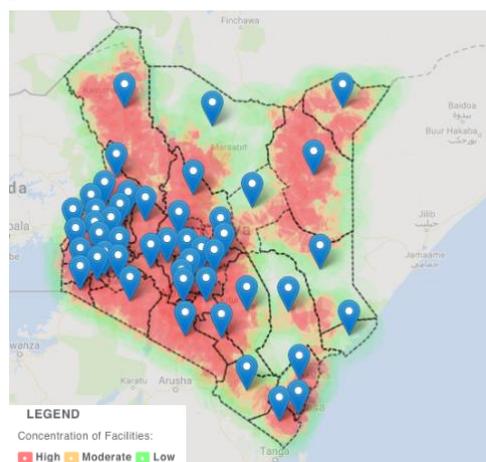
This study aims to understand the barriers that many Kenyans face towards accessing healthcare. This study was conducted in Kisumu and Siaya Counties, Kenya. Kisumu is an urban environment, whereas Siaya is a rural environment. Throughout both counties, areas with presumably low access to healthcare were surveyed. In Kisumu County, surveys were conducted in three informal settlements: Nyalenda, Obunga, and Manyatta. In Siaya County, surveys were conducted in Simenya Village.

This study has shown that financial accessibility is a large barrier to healthcare throughout the study population, as the majority of study participants felt that healthcare in Kenya is not affordable. This is likely due to low health coverage and low enrollment rates into Kenya's national health insurance plan, National Hospital Insurance Fund (NHIF). Geographic barriers are also faced by members of the survey population. Despite the fact that most of the survey participants live within a reasonable distance (under 3km) of a healthcare facility, it can still take them a large amount of time to reach the facility. This is typically because of the indirect and unpaved paths and because travel is especially difficult for those that are old, sick, injured, or carrying children. The geographic barriers are directly linked to the financial barriers, as many people do not have enough money to pay for both the transportation to and from the facility and the care they need. The leading reason that survey participants made their facility choice was due to quality service, which shows that most people do find the healthcare facilities to offer acceptable service, despite other barriers that may exist. This study helped to clarify the barriers Kenyans face towards accessing healthcare and now measures can be taken to ensure that quality healthcare is readily available to all throughout the area.

INTRODUCTION

Access to healthcare is defined as “the timely use of health services to achieve the best possible outcomes, or the ease with which an individual can obtain needed medical services” (Londenyo, 2016). Access to healthcare is a major problem worldwide, as many poor or impoverished areas are far from healthcare facilities, are unable to pay for healthcare services, or do not have access to facilities with the necessary departments nearby. The World Health Organization (WHO) deemed utilization of healthcare services by vulnerable populations as a basic primary healthcare concept. In sub-Saharan Africa, more than 50% of the population does not have acceptable access to healthcare (Lodenyo, 2016).

Limited access to healthcare is an issue most often faced throughout developing countries. Researchers have agreed that health facility data and cross-sectional surveys should be used together to best determine where to allocate healthcare resources to the top priority locations (Kubaje, 2005). It was also noted that collection of health and demographic data is difficult to collect in developing countries because there are no established surveillance systems, especially for healthcare received outside of established facilities (Kubaje, 2005). Developing countries generally have less access to healthcare and furthermore, the impoverished people within these nations have even more limited access to healthcare (Peters, 2008). This gap in healthcare is further extended by the cycle of poverty: poverty leads to decreased access to healthcare, which leads to decreased health status, which puts people further into poverty. This cycle is often never-ending, and it becomes very difficult for people to break the cycle of poverty, increase their health status, and find adequate healthcare.



The WHO states that Kenya has a doctor to patient ratio of 1 doctor for 16,000 patients (Ombuor, 2017). The appropriate doctor to patient ratio as recommended by the WHO is 1 doctor to every 300 patients (Ombuor, 2017). This shows that Kenya is nowhere close to having an adequate number of doctors to support their population, meaning that access to healthcare is likely low, given that wait times for doctors would be very long because of the large number of patients each doctor needs to support.

There are four factors largely affecting people's access to healthcare – geographic accessibility, availability, financial accessibility, and acceptability (Peters, 2008). Geographic accessibility, or the distance to get to a healthcare facility, is affected by many factors. The condition of roads, distance of travel, physical abilities of patients, as well as the ability for other providers (drugs, supplies, staff) to get to the hospital affect a person's perceived geographic access to healthcare. The condition of roads is important for many reasons, as it impacts a patient's ability to get to a healthcare facility, as well as the ability of resources to get to healthcare facilities. Without good roads, drugs, supplies, and even the healthcare professionals would not be able to get to the healthcare facility, rendering it nearly useless. The distance to a healthcare facility also affects the cost for families who live far away, because they lose valuable working hours to go to the facility and they must take on the cost of transportation to the facility. A phenomenon known as the distance-decay effect has been documented in many developing countries, and incidences of this have been reported in Kenya (Feikin, 2009). The distance-decay effect occurs when the amount that a patient visits the hospital decays based on how far away from the hospital they live. A 2009 study in Western Kenya showed that for every 1 km increase in distance of residence from healthcare facility, the rate of clinic visits decreased by 34% (Feikin, 2009). In the same study of 10,973 children living in the Bondo District of Western Kenya, the average distance from a healthcare clinic was 2.07 km, and 95% of children travelled less than 5 km to the clinic, given that they most often visited the clinic closest to their residence (Feikin, 2009). Overall, the distance that a person lives from a healthcare facility has a significant inverse relationship with how often a family goes to the clinic. However, it has also been shown that the impact of the distance-decay effect decreases when the severity of illness increases. This means that patients are more willing to travel further distances when the symptoms are worse.

Another barrier to healthcare is availability (Peters, 2008). Availability refers to what services, treatments, and drugs are available at the facility, as well as how often the facility is available for use. While a community may have access to a healthcare facility, it may not have access to a healthcare facility providing the specialized service that they need. Also, many rural healthcare facilities have long waiting times and limited open hours. Availability of the necessary drugs has also been an issue reported throughout rural areas (Peters, 2008).

Financial barriers to healthcare arguably have the most impact on healthcare throughout the world. Financial accessibility is not only affected by the direct cost of healthcare, but also by the indirect costs. Indirect costs include the opportunity loss of taking time off of work, transportation costs, lodging costs, as well as extra treatment costs. Many developing countries have had trouble establishing a mechanism of financing healthcare services. Médecins sans Frontières conducted surveys throughout six developing countries to measure the impact of user fees and payment systems in healthcare facilities between 2003-2006. The study determined that financial barriers affected 30-60% of people participating in the study (Ponsar, 2011). User fees have been a controversial method of funding and paying for healthcare throughout Kenya, and in 2004, user fees were changed to make healthcare at dispensaries and at the health center level free for all Kenyans (Carrin, 2007). A study of 20 African countries found that the number of child deaths could possibly reduce by 233,000 if user fees were abolished (Rutherford, 2010). In Kenya, almost 50% of the population lives below the poverty line (Kimani, 2012), and with established user fees and limited access to health insurance, many Kenyans are unable to afford the financial burden of adequate healthcare. The Government of Kenya planned to change the NHIF into a universal health coverage system in order to make healthcare more affordable for all citizens of Kenya. During a 2012 survey of citizens living in a Nairobi slum, only 10% of survey respondents were enrolled in NHIF, and the majority were not enrolled in any type of health coverage at all (Kimani, 2012). The insufficient amount of residents without appropriate health coverage shows that a social health insurance program is needed in Kenya to ensure that everyone has access to affordable healthcare.

The fourth notable barrier to healthcare is acceptability. Acceptability has not really been researched much in regards to healthcare, as it a relatively new concept to be considered. Acceptability can be defined as a patient's opinion on the quality of a healthcare facility, which could relate to whether they seek care at that institution or travel further from their home for a healthcare facility they deem more acceptable. Acceptability includes factors such as the patient's perception of the cleanliness of the facility, the quality and politeness of the staff, the wait times, and the availability of drugs and treatments.

Limited access to healthcare is a large issue throughout Sub-Saharan Africa (SSA), and it greatly affects children under five and the elderly (categorized as over 50 years old in SSA (African Union)). For these populations, factors such as geography, education level, and

socioeconomic status of their caregivers play a large role in how often they utilize healthcare facilities. In Uganda, a cross-sectional survey found that the reasons older individuals did not access healthcare facilities when ill were the severity of illness, no access to healthcare facilities, financial barriers, and a personal preference toward the use of informal care (Wandera, 2015). It is estimated that 41% of deaths of children under five worldwide occur in SSA, and limited access to healthcare is considered to be a main contributing factor. (Rutherford, 2010).

Throughout SSA, there is also a high rate of deaths at home, which showcases the limited access to healthcare (Rutherford, 2010). Overall, many studies have shown that concerted efforts to reach low-access areas with healthcare have worked, and more work needs to be done in these areas to bring health to individuals living in rural and impoverished areas (Peters, 2008).

Other barriers to healthcare relate back to cultural norms throughout parts of Africa. The lack of female autonomy in some cultures poses a problem when it comes to accessing and utilizing healthcare. Some cultures restrict the autonomy of women and require women to seek permission of a male before bringing a child to a healthcare facility or going herself, to need a male escort to leave the house, or women not having control over finances or access to money (Rutherford, 2010). Since women are often caregivers of the other members of the household, and the male members of the house may not be present at the time healthcare is needed, these cultural practices are seen as a hindrance to the access of healthcare, especially in times of emergency. This is a barrier that is not often studied, as it might not be culturally appropriate to address these factors.

People can be empowered to change their access to healthcare at the both the individual and community levels (Peters, 2008). At the individual level, this includes making lifestyle changes to be physically healthier and to go to the doctor when symptoms are more severe than can be handled at home. At the community level, resources and health services should be secured for all people living in the community, and Community Health Volunteers (CHVs) should work to promote the professional healthcare services offered to their community members. Studies in India have also showcased that Ministries of Health have played a large role in rural communities' access to healthcare (Peters, 2008), and similar systems and changes at the governmental level could be applied throughout Kenya. In 1997, the Kenya Ministry of Health began a restructuring of the healthcare system in order to increase access to healthcare in rural

and impoverished areas (Ministry of Health, 1997), however it is arguable whether or not these changes have been effective.

This study aims to fill the gaps in research on the intersection of the four main barriers to healthcare; geographic accessibility, financial accessibility, availability, and acceptability. In order to deepen the understanding of these barriers of community members in Kisumu and Siaya Counties, Kenya will be conducted to ask questions regarding social demographics, usage, and opinions on healthcare. This data will be analyzed through Microsoft Excel.

OBJECTIVES

The objectives of this research study will be to conduct surveys in order to discover what kind of services are offered at each healthcare facility, what ailments are often presented by patients, and how far patients will travel to get services at that specific healthcare facility. Furthermore, a survey will be administered to residents of both counties to further understand their access to healthcare, use of healthcare facilities, incidence of illness, and likelihood to go to a doctor for certain illnesses. It is important to survey both the urban and rural setting in order to understand the barriers faced in both settings. The overarching objective of this research project will be to understand the barriers faced in accessing healthcare by the target population, and to uncover ways in which the barriers can be broken down to make healthcare more accessible.

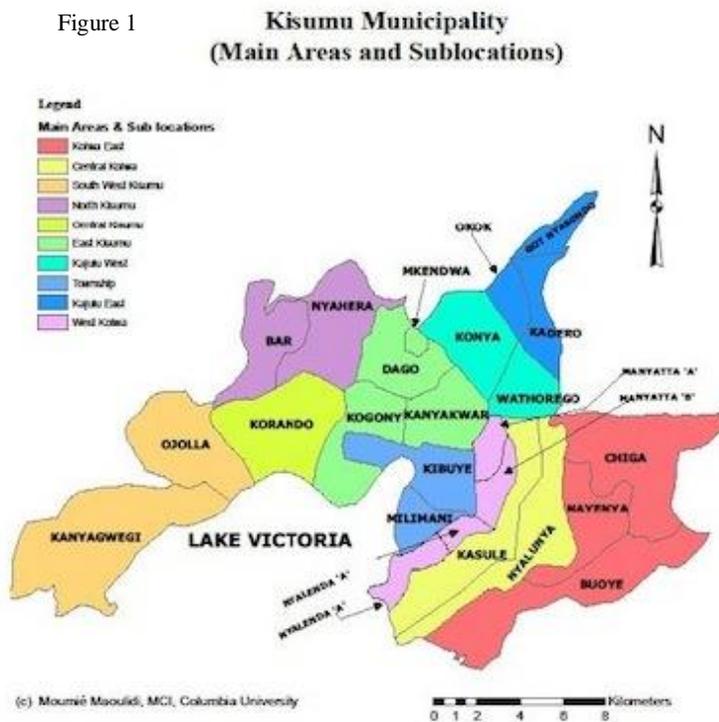
THE SETTING

This study was conducted in Kisumu and Siaya Counties, Kenya. Kisumu is an urban environment, while Siaya is a rural environment. Throughout both counties, areas with presumably low access to healthcare were targeted for surveying. In Kisumu County, surveys were conducted in three informal settlements: Nyalenda, Obunga, and Manyatta. In Siaya County, surveys were conducted in Simenya Village. The last census was taken in 2009, with a population of 842,304 people living in Siaya County, and 968,879 people living in Kisumu County (citypopulation.de). In 2015, it was noted that there were 174 registered health facilities in Siaya County and 199 registered health facilities in Kisumu County, with these numbers

containing all public facilities, private facilities, dispensaries, and nursing homes (<http://ehealth.or.ke>).

Nyalenda is an urban informal settlement organized into two subsections, Nyalenda A and Nyalenda B. Surveys were conducted in Nyalenda A. Nyalenda A has an approximate population of 28,269 people living in 3.2 square kilometer area (softkenya.com). Manyatta is also an urban informal settlement organized into two subsections, Manyatta A and Manyatta B. Surveys were conducted throughout only Manyatta B. Manyatta B has a population of 27,952 in

a 2.5 square kilometer area (softkenya.com). Obunga is an urban informal settlement that is a part of the Kanyakwar municipality, and has an approximate population of 8,211 people living in a 1.8 square kilometer area (“Access to Safe Water and Household Water-User Preference in Obunga Slums of Kisumu Municipality, Ken”). Simenya Village has a population of 8,000 people and is 7.1 square kilometers.



Living conditions were observed during survey administration as surveys were completed inside of the households of the participants. In the urban informal settlements, living conditions are very harsh as there are often many people living within one small house. Houses are typically one to two rooms with different areas sectioned off by curtains for different purposes (kitchen, living area, and bedroom). Family members typically share beds. Latrines are not located in the home, and are shared between many people in the compound. The latrines are typically pay-per-use pit latrines, which were described as being rarely clean, without closing doors, and often without provided tissue. While the latrines may meet levels of improved sanitation, by the WHO definition, they do not meet standards of human decency. Cooking is done by burning charcoal within the home, exposing residents to an open flame and the fumes of the charcoal. With most residents of the urban

informal settlements working in the informal sector, their wages are extremely low. These levels of impoverishment lead to worse living conditions and lower standards of health.

In Simenya, living conditions varied more from household to household, but are generally higher than the standard of living within the urban informal settlements. Most homes are made from a mud mixture, and may have roofs made of tin, straw, or more of the mud mixture. Most homes have a dirt floor. Many homes are set up as a traditional Luo homestead, which involves different structures for the different functions (a kitchen structure, a living area structure, a bedroom structure, a structure for the children to sleep in, etc.). Other homes are a larger structure divided by mud walls into various rooms. Cooking is still done through burning charcoal, either inside or outside the home. The majority of residents of Simenya also work in the informal sector, and still make very little money. Many people in Simenya Village are farmers, and do manual labor on their farms during the day. This means they are often walking long distances and spending their days doing physical labor. Since there are many fields throughout the village, things are very far apart and people travel great distances to reach shops, the homes of friends, schools, and other places.

In Kenya, there are several kinds of healthcare facilities. Facilities are separated by levels, with each level advancing for more serious care. Dispensaries are the first level of healthcare facility. A dispensary typically has a Clinical Officer (the Kenyan equivalent of a Physician's Assistant) and several nurses, and is used for treatment of simple illnesses, uncomplicated deliveries, prenatal care, testing, and vaccinations. Dispensaries typically do not admit patients for overnight stays. Public and private hospitals are the next level, which provide primary care. A public hospital is funded by the government, while a private hospital is more expensive for patients and privately owned. Both public and private hospitals allow for patients to be admitted, and are more comprehensive in the services they offer. Public and private hospitals typically have physicians in addition to the Clinical Officers and nurses. There are more advanced levels beyond these facilities, but they are for specialized care. Traditional healers are also an unofficial part of the Kenyan healthcare system. Traditional healers are people who believe they can heal others, and they can be herbalists, faith healers, dividers, or spiritualists. They usually work out of their homes and are often found in urban informal settlements. Traditional healers claim to be able to heal stomach problems and broken bones, among other things. They also believe that they can treat HIV/AIDS, malaria, and typhoid.

METHODOLOGY

In order to further understand the barriers to healthcare that are faced by the study population, a survey was administered to various residents of the four chosen areas (Nyalenda, Obunga, Manyatta, and Simenya Village). The consent form (Appendix 1) and survey (Appendix 2) were both written in English and Swahili in order to reach more participants. Community Health Volunteers (CHVs) native to each of the four areas were employed for this study. Participants were chosen at random by the CHV, and were eligible to participate as long as they were over 18 and had a knowledge of the workings of the household.

Upon entering the households, participants were given the consent form to read over, and if they were illiterate the consent form was read to them in their preferred language and they were asked to sign. Surveys were administered orally in order to keep consistency between literate and illiterate participants. 80 surveys were administered, with 78 (18 from Nyalenda, 18 from Manyatta, 17 from Obunga, and 25 from Simenya Village) providing usable data.

The survey asks demographic questions of the participant and their household, as well as questions about all four of the aforementioned barriers to healthcare. To discuss affordability, questions about the household income, cheapness of the facility, and the participant's opinion of the affordability of healthcare in general are asked. Participants are also asked if they have NHIF or another form of health insurance, and if they don't, they're asked how they typically pay for health insurance. To discuss geographic barriers, participants are asked to estimate in kilometers how far they live from the healthcare facility they typically go to, and how long it takes them to get there. Participants are also asked if they would consider this distance to be "near" to their home. To discuss availability and acceptability, participants are asked the reasons they choose to go to these facilities and if applicable, why they chose to give birth in the setting that they did, and where they would go to be tested for certain diseases (HIV, sexually transmitted infections, and tuberculosis). These questions help to showcase if the participant views their facility as being acceptable for various needs, such as birthing or testing, and if the facility is available for these procedures. Acceptability is also measured by asking participants if the facility is clean, if they wait a long time for service, if the staff are polite, and if they have the necessary drugs and treatments they need.

The independent variables in this study are distance, affordability, acceptability, and availability. The dependent variables are the use of the healthcare facility. The moderating variables are severity of illness, age of patient, and perception of healthcare providers.

ANALYSIS AND RESULTS

Demographics

Survey participants were fairly evenly distributed amongst the four population areas, with 23.1% from Nyalenda, 23.1% from Manyatta, 21.8% from Obunga, and 32.1% from Simenya Village. 78.1% of all participants were female. It was expected that the majority of participants would be female, as surveys were given inside of the household during the day, and it is typically the women of the house who are home at this time. On average, participant households had 4 children and 5 total people living in the home. In the urban setting of Kisumu County, the average was 3 children and 5 total household members, and in Siaya County the average was 4 children and 5 total household members. The highest number of children in any household surveyed was 6 and the highest total population within one household was 14. The high number of people living in one household contributes to the poor living conditions, as they often share beds or live in a very small area, which also contributes to the rapid spread of illness.

45% of all survey respondents reported that they did not have a salary, regular source of income, or estimate of how much money they made per day or per month. This is likely because they describe themselves as casual workers, and do not make a steady income. Casual workers are those who work on farms, sell produce, drive motorbikes, or work other odd jobs, which does not allow them to estimate their standard income. A few other participants did not list income because they are retired, students, or they were women whose husbands would not share financial matters with them. Of the other 55% of respondents who did report a monthly salary, the average was 15,244 Kenya shillings (KSH) per month. That is the equivalent of 152 U.S. dollars per month. The average is very different between Kisumu and Siaya Counties. The average income of Siaya County respondents is 7,200 KSH (72 USD). The average income of survey participants in Kisumu County is 15,176 KSH (151.76 USD). Some of this difference is due to the cost of living being much lower in the rural environment of Simenya Village, but it can also be attributed to the different styles of work because many more people in Simenya are

casual workers than in Kisumu County. 84% of survey respondents in Simenya reported no salary or steady income, which is likely due to their agricultural lifestyle. People in Kenya are considered to be in poverty if they make less than 110 KSH per day (Daily Nation, 2014). Most people who were able to report a salary made above the poverty line, but it is likely that many of the people who were unable to report a salary are living in poverty.

Healthcare Facility Choice

The most often attended types of healthcare facility amongst all survey respondents were public dispensaries (39.7%) and public healthcare facilities (39.7%). Private healthcare facilities were used by 19.2% of respondents. No respondents reported use of traditional healers, and 2.6% of people reported that they used other forms of healthcare services. In urban Kisumu County,

SIAYA COUNTY - FACILITY CHOICE

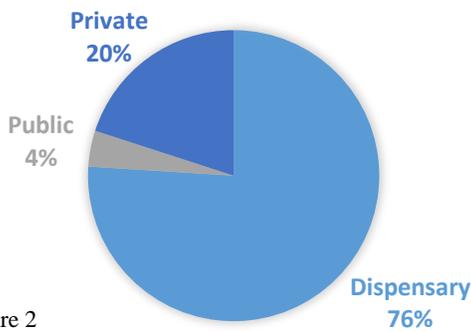


Figure 2

KISUMU COUNTY - FACILITY CHOICE

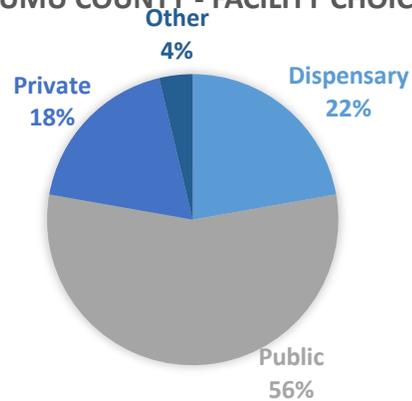


Figure 3

SIAYA COUNTY - REASONS FOR CHOICE

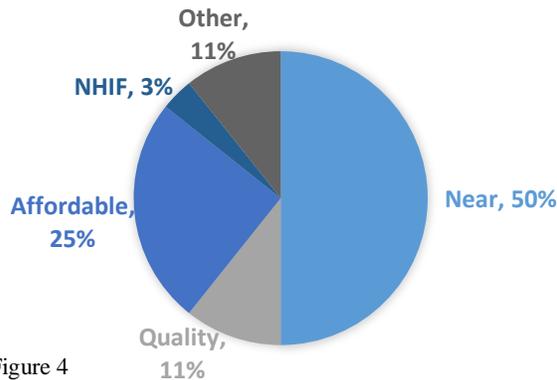


Figure 4

KISUMU COUNTY - REASONS FOR CHOICE

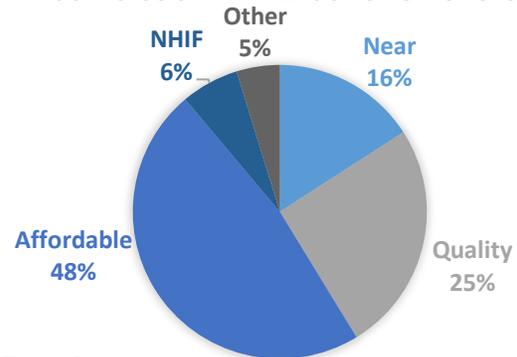


Figure 5

most respondents (56.6%) go to public healthcare facilities when they are ill (Figure 2). In rural Siaya County, most respondents (76.0%) go to dispensaries (Figure 3). These results support the hypothesis, as dispensaries and public healthcare facilities are the cheapest options for healthcare

in Kenya. The three most common reasons respondents chose to go to the facility they usually go to are that the facility is near their home (30.8%), the facility offers quality service (24.4%), or that the facility has affordable services (47.4%). Other participants mentioned that they were offered medical coverage at that hospital due to their NHIF card (6.4%) or other reasons (7.7%) including personal preference and less wait time. In Siaya County, the majority of people (56.0%) chose to go to their facility because it is near (Figure 4). This is likely due to the difficult road conditions and extensive fields that people must travel through in Simenya Village. It is difficult to get vehicles other than motorbikes through the village, so most participants reported walking to the healthcare facility. When ill or traveling with children, they choose the nearest facility so that they do not have to walk as far. Many participants also mentioned that they often couldn't afford to pay for transportation to a farther facility and care at that facility, so they had to just walk to the nearest facility in order to have the money for treatment. In Kisumu County, the majority of people (56.6%) chose their preferred facility because it is affordable (Figure 5). In Kisumu County, while people did still report that they walked, many more people reported taking motorbikes, tuk-tuks, or cars. Also, with more available options in the urban center, people had more liberty to choose based on better pricing options. Only 16.7% of respondents reported that they had been referred to their facility of choice, so it is unlikely that referral plays a large role in selection of a person's primary healthcare facility.

Geographic Accessibility

Participants were asked to tell, in their opinion, if the facility was near. Distance is subjective, as many people do not have adequate transportation to travel a distance that others may consider to be near. Also, both the urban informal settlements and the rural village do not have paved roads or direct paths. The paths are woven throughout houses, compounds, and plots of farm land, so people are often left taking a circuitous route to get somewhere that may only be a few meters or kilometers away. 76.9% of all survey participants said that the facility they regularly attend is near their home. Of the participants who regularly attend a dispensary, 96.8% said it was near. Of the participants who regularly attend a public healthcare facility, 64.7% said it was near. Of the participants who regularly attend a private healthcare facility, 66.7% said it was near. Given that there are many more dispensaries throughout the survey areas, it is understandable that so many people found their typical dispensary to be near. However, it is

clear that distance is still a barrier for many participants. Participants travel an average of 2.36 kilometers to their healthcare facility, and take an average of 23 minutes to get there. The furthest any participant reported traveling was 14 kilometers, and traveled by car. The furthest that any participants reported walking was 8 kilometers, taking anywhere from 60-90 minutes, depending on the participants physical abilities. Given the large distances participants are traveling, it is likely that they will not seek care for things they may perceive as minor, especially if they cannot afford to pay for transportation. This could lead to simple illnesses becoming much more severe due to lack of treatment.

Acceptability

In terms of acceptability, participants were asked to answer several questions on a Likert scale. Participants were asked of the cleanliness of the facility, patient flow, availability of drugs and treatments, and the quality of the staff. 78.2% of all participants either agreed or strongly agreed that their typical healthcare facility was clean. 15.4% of respondents were neutral to this statement, meaning that only 5.2% disagreed or strongly disagreed. This is positive, because cleanliness is a large part of acceptability. Patients should not have to utilize an unclean facility, as that shows the facility is not of high standards and could contribute to the spread of illness. The majority of survey participants (52.6%) either disagreed or strongly disagreed with the statement “patient flow at this hospital was good and I did not have to wait very long for service”. Many participants reported that they often must wait a very long time in the queue before being served, and that sometimes they will not go for treatment because they do not have the time. For many residents of the survey area, taking a lot of time out of their day can be costly, as they don't have any paid leave or “sick days”. People are mostly doing casual work, which could mean driving motorbikes or selling produce in a stand. If they aren't available to work, no money will be made. This makes healthcare unavailable for many people, as they don't have the time to dedicate towards waiting. Participants who frequent private healthcare facilities reported that they did not have to wait that long in the queue, however many people cannot afford the services of a private healthcare facility.

69.2% of survey participants agreed or strongly agreed with the statement “the staff were polite, friendly, and did their job well”. While this is the majority of participants, it reflects poorly on the healthcare providers that 30.8% of the survey participants did not agree with the

statement. Participants made statements such as “the employees harass patients” and “the doctors are very arrogant”. While it is evident that not all patients felt that way, it is very important to improve the doctor-patient relationship in order to make healthcare facilities more acceptable to patients. It is less likely that patients will attend healthcare facilities when they are ill if they don’t like or trust the healthcare professionals working there.

Availability

Opinions were more split on the availability of necessary drugs and treatments at their healthcare facilities. 25.6% of people disagreed with the statement “the necessary drugs and treatments I needed were readily available at this facility”, 24.4% of people remained neutral about the statement, and 25.6% of people agreed. The majority of people stated that the availability of drugs and treatments depends on what kind of illness you are trying to treat. For common illnesses, the drugs and treatments are typically there. However, for anything that requires more specialized care, it is likely you will have to go somewhere else, potentially to a larger hospital. Participants also mentioned that healthcare facilities often only prescribe the medications or treatments needed, but they cannot get the prescribed medication at the facility and have to go elsewhere to purchase it.

Financial Accessibility

IS HEALTHCARE AFFORDABLE?

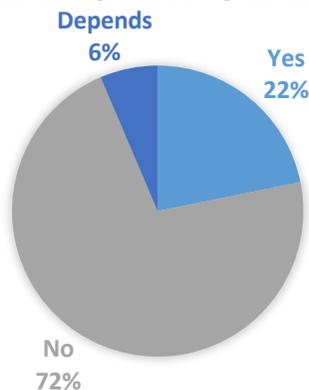


Figure 6

On issues of affordability, participants were asked to discuss if they felt healthcare was affordable in general, not just in regards to the facility they normally attend. 71.8% of survey respondents said that healthcare is not affordable (Figure 6). Many participants stated that they didn’t feel it was affordable because they often had to borrow money from friends and family,

and could not pay for it out of their own pocket. Other participants expressed fears of serious illness, as they believed that treatment for things like that are unattainable. Throughout Kenya, many specialists are not readily available at healthcare facilities, and are only available at the

much larger and higher level facilities. This means that when someone needs treatment for a severe illness, they may have to travel to another city, which could be hours away and very expensive. Furthermore, some participants expressed their financial difficulties from suffering from chronic illnesses. One participant spoke of her daughter, who had asthma, but she could not afford to continue purchasing her inhalers. It is important to note that the discussion of affordability of healthcare is not limited to the price of the healthcare services themselves, but also entails the cost of treatment, necessary drugs, lifestyle changes, transportation, follow-up appointments, and time. All of these factors are involved in the affordability of healthcare, which is why many Kenyans do not find healthcare to be affordable. 6.4% of survey participants said they felt the affordability of healthcare depends on the situation, and they felt general care was affordable, but care for anything unforeseen or serious would not be affordable.

Participants were also asked to tell, in their opinion, if the services at their usual healthcare facility are cheap. Price is subjective, as what may be cheap to one to person is not cheap to another, based on salary and the various expenses some families have that others don't. Also, perceptions of affordability depend on the type of illness that the family encounters. It is cheaper to treat certain illnesses than others. 69.2% of all participants said that healthcare is cheap at the facility they regularly attend. Of the participants who regularly attend a dispensary, 93.5% said it was cheap. Of the participants who regularly attend a public healthcare facility, 54.8% said it was cheap. Of the participants who regularly attend a private healthcare facility, only 40.0% said it was cheap. This is expected, as private hospitals have higher fees than a

public facility or dispensary, as they are privately owned and not managed by the government.

The National Hospital Insurance Fund (NHIF) is Kenya's national health insurance. Once enrolled in NHIF, people can select a healthcare facility for primary care, and then will receive coverage at this facility. While this is a great program that

helps to make healthcare more affordable, Kenya faces low enrollment rates. Of the study participants, only 32.1% were enrolled in NHIF (Figure 7). More participants in the urban areas

DO YOU HAVE NHIF?

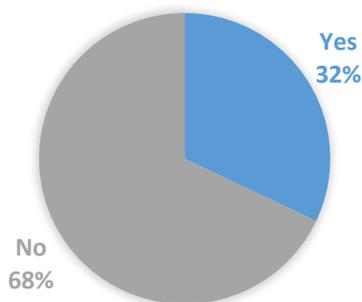


Figure 7

were enrolled than in the rural area. Some individuals reported having an NHIF card, but not having paid it, rendering it inactive. These participants were categorized as not having NHIF coverage. For participants without NHIF, they were asked how they typically pay for healthcare without coverage. Most people reported that they pay for healthcare out of pocket, and typically borrow money from friends and family whenever they don't have enough. Two participants reported that their children were sponsored by an outside organization who pays for their children's healthcare. A few others said that they will only go if they have the money at that time, and if they do not have the money, they will not go for treatment.

Childbirth

Participants were also surveyed about where they chose to give birth to their most recent

	Kisumu	Siaya	Overall
Home	8.8%	35.7%	16.7%
Dispensary	0.0%	14.3%	4.2%
Public	67.6%	35.7%	58.3%
Private	23.5%	14.3%	20.8%

child. 61.5% of all survey participants reported having delivered children. Of the 61.5% who have given birth, 58.3% delivered in a public hospital, 20.8% in a private hospital, 16.7% at home, and 4.2% in a dispensary (Figure 8). The majority of

women who gave birth and live in Kisumu County gave birth in a public healthcare facility. In Siaya County, the majority of women either gave birth in a public healthcare facility or at home.

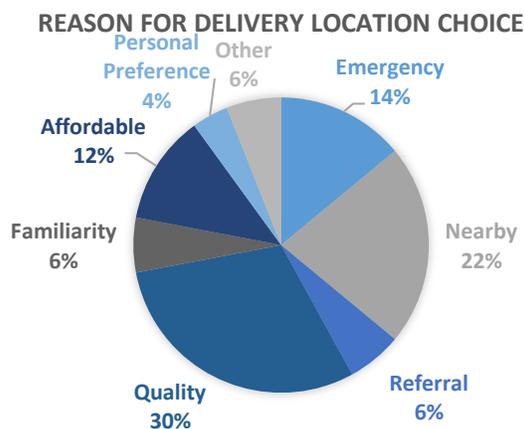


Figure 9

Overall, the reasons that women gave for choosing to give birth at their selected location varied greatly. 31.3% of women chose their facility because they knew the service was of high quality and comprehensive in case of complications. 22.9% of women chose their facility because it was near to their home. Other reasons included that the birth was an emergency, they were referred to their facility by a friend or other healthcare facility, they were familiar with that facility, the facility was affordable, or that it was their personal preference (Figure 9). For women who chose to deliver at home, the main reasons were due to emergency

(35.5%) or personal preference (25.0%). Women who chose to give birth in a dispensary made their choice because of either familiarity or because it was close to their home. The most common reason that women chose a public healthcare facility to deliver was due to the quality service offered at the facility. Reasons for women giving birth in a private healthcare facility were more diverse. 20.0% of women chose a private facility because they were referred there, 20.0% because the birth was an emergency, and 20.0% because the service offered was high quality. The remaining women who chose to give birth at a private facility chose because it was near, affordable, or for other reasons.

Testing for Common Illnesses

Survey participants were also asked where they would go to be tested for tuberculosis, HIV, and sexually transmitted infections. These diseases are very common throughout Kenya, and there are many initiatives in place to convince people to be tested. However, there is also a perceived cultural stigma associated with these diseases. Some hospitals throughout Kenya offer night testing and treatment for HIV/AIDS so that those who wish for privacy can be afforded some. In this survey, participants were asked if they would go to their typical healthcare facility or to a different healthcare facility for testing to determine if the tests and treatments were readily available and acceptable.

When survey participants are to be tested for tuberculosis, 55.1% of participants will go to their typical facility, 35.9% will go to a different facility, and 7.7% will go anywhere that offers the service (Figure 10). Of those who would go to their typical facility, most people

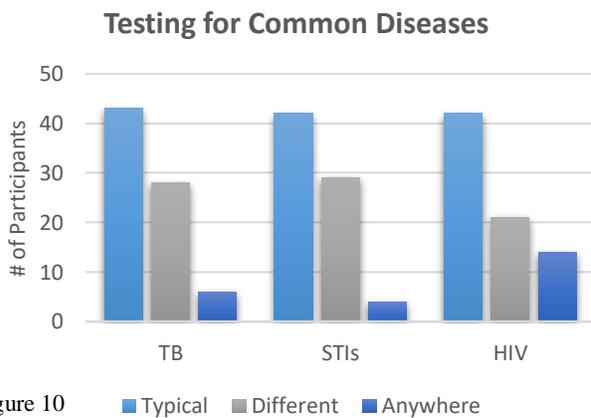


Figure 10

■ Typical ■ Different ■ Anywhere

(53.5%) chose because they know their typical facility offers quality service. For participants who chose to go to a different facility, the leading reasons were that the other facility offered high quality service (35.7%) or that their usual facility doesn't offer the service necessary (21.4%). When survey participants are to be tested for sexually transmitted infections (STIs),

53.8% of participants will go to their typical facility, 37.2% of participants will go to a different

facility, and 5.1% of participants will go anywhere that offers the service (Figure 10). Both for people who would go to their typical facility or their different facility, the majority of people made their choice because the facility offers high quality service. When survey participants are to be tested for HIV, 53.8% will go to their typical facility, 26.9% will go to a different facility, and 17.9% will go anywhere that offers the service. For participants who chose to go to their normal facility, the majority (50.0%) made this choice because their typical facility is near to their home. For those who chose to attend a different facility for testing, 19.0% of people made that choice because the different facility is closer to their home, 19.0% made that choice because they are more familiar with the different facility, and 28.6% would choose to go to a different facility because that facility offers high quality service. Throughout the survey administration, many participants mentioned that there are so many places to be tested and treated for HIV, so they are able to go to any healthcare facility they wish and do not have to worry about the service not being offered. For both those who chose to go to their typical facility and those who would choose somewhere different, 32.1% made their choice because their chosen facility was near, 25.6% chose because their chosen facility offers high quality service, and 11.5% made their choice because they are familiar with their chosen facility. No participants stated that they wanted privacy during testing, which refuted the aforementioned hypothesis. However, this is a very positive response and shows that Kenya is making progress in breaking down the stigma about tuberculosis, STIs, and HIV.

CONCLUSION

In conclusion, this study has moved to further understand the barriers against accessing healthcare that Kenyans face on a regular basis. The four main barriers to healthcare throughout the world are known as financial accessibility, geographic accessibility, availability, and acceptability. This study has aimed to understand how these four barriers affect members of Siaya and Kisumu Counties in Kenya. This study has shown that financial accessibility is a very large barrier to healthcare throughout the study population, as the majority of study participants felt that healthcare in Kenya was not affordable. This is likely due to low health coverage and low enrollment rates into Kenya's national health insurance plan, NHIF. From speaking with the participants and hearing their reasoning, it is likely that financial accessibility is the most

significant barrier faced when accessing healthcare. Geographic barriers are also faced by members of the survey population. Despite the fact that most of the survey participants live within a reasonable distance of a healthcare facility, it can still take them a large amount of time to reach the facility. This is typically because of the indirect and unpaved paths that they must take, and sometimes because they are old, sick, injured, or carrying children. The geographic barriers are directly linked to the financial barriers, as many people do not have enough money to pay for both the transportation to and from the facility and the necessary care.

The survey population was more divided on the effects of barriers from acceptability and availability. While most of the healthcare facilities have comprehensive open hours, many survey respondents noted the long wait times they face, which makes them less likely to go to a healthcare facility for care when they are ill. Also, many patients noted that the drugs and treatments they need aren't readily available at the facility, explaining that they often must go to a chemist after attending a healthcare facility in order to purchase what they need. This was further evidenced by the number of people who would choose to go to a different facility to be tested for tuberculosis, HIV, and STIs, since their usual facility did not offer the test or service. However, many people mentioned the breadth of healthcare facilities that offer comprehensive HIV/AIDS care, which showcases Kenya's impressive progresses towards changing the social stigma surrounding the disease. Many survey participants knew their HIV status, and were willing to discuss the comprehensive tests and care they were able to receive at most healthcare facilities in the area. In regards to acceptability, most survey participants noted that the facilities are clean, and the majority of participants agreed that staff are friendly, polite, and do their job well. The leading reason that survey participants made their facility choice was due to quality service, which shows that most people find the healthcare facilities offer acceptable service, despite other barriers (such as cost) that may exist.

Moving forward with the results of this study, it is important to break down the barriers that many Kenyans face towards accessing healthcare. Now that the barriers are better understood, and the challenges are known, measures can be taken to ensure that quality healthcare is readily available to all throughout the area. This study has shown that affordability is the largest barrier faced to healthcare in Kenya, and that while NHIF is available, it is widely underutilized. Hopefully in the future, Kenya can increase enrollment into the NHIF program, making healthcare more affordable and accessible to all citizens. Also, understanding the

geographic barriers faced by many, it is important to consider where healthcare facilities are located and what areas are lacking a healthcare facility. Building new healthcare facilities, at even a dispensary level, could make healthcare more accessible to those who live in an underserved area.

RECOMMENDATIONS

In addition to the findings of this study, it would be important to interview healthcare professionals and key actors in the healthcare system. This would give insight into their opinions of the barriers Kenyans face to accessing healthcare, and would help to determine if the officials and professionals are able to see the difficulties many people face. If healthcare professionals and key actors in the healthcare system are aware of the struggles that many Kenyans face, it is possible that they will be more open to change or adaptation within the system. Unfortunately, this was not able to be completed during this study due to time constraints, but this information would be valuable to understanding the full picture of healthcare accessibility within Kenya. While this study does compare an urban and rural environment within Kenya, future studies could conduct similar surveys throughout other areas of Kenya to see if similar or different barriers are faced.

APPENDIX – ARTICLE 1 – SAMPLE CONSENT FORM

SIT Study Abroad

a program of World Learning



CONSENT FORM

Fomu ya Idhini

1. **Principle Investigator:** Quinn Alsheimer
Kanuni Uchunguzi: Quinn Alsheimer

2. **Research Question**

How accessible is healthcare in Kenya based on factors of affordability, population, and distance?

Swali la Utafiti

Kuna uwezo kiasi gani kupata huduma za afya nchini Kenya kulingana na sababu za uwezekano, idadi ya watu na umbali?

3. **Brief description of the purpose of this study**

The purpose of this study is to determine the main barriers to healthcare in Kisumu and Siaya Counties and how they affect people's access to healthcare. Many people living in Kenya do not have access to healthcare, and because of that many treatable illnesses become more severe and sometimes even fatal. By determining the main barriers, action can be taken to make healthcare more accessible.

Maelezo mafupi ya lengo au kusudi la utafiti huu

Lengo au kusudi kuu la utafiti huu ni kuamua vikwazo vikuu vya huduma za afya katika kaunti/kata za Kisumu na Siaya na jinsi zinavyoathiri upatikanaji wa huduma za afya kwa wananchi. Watu wengi wanaoishi Kenya hawawezi kupata huduma za afya, na kwa sababu hiyo magonjwa mengi ya kutibu huwa kali na wakati mwingine husababisha kifo. Kwa kuamua vikwazo vikuu, hatua inaweza kuchukuliwa kufanya huduma za afya kupatikana zaidi.

4. **Participant Involvement**

I am asking for participants to take 20-30 minutes of their time to complete a survey asking questions regarding their socioeconomic status, health, and use of healthcare facilities.

Ushiriki wa mshiriki

Ninaomba washiriki kuchukua dakika 20-30 ya muda wao kukamilisha utafiti unaouliza maswali kuhusu hali ya kiuchumu ya kijamii, afya na matumizi ya vifaa vya afya.

5. **Risks and Benefits**

Hatari na Faida

There are no potential risks to participants of this survey. There are no immediate benefits to survey participants, however in the long-term, the data collected in this survey may impact the accessibility of healthcare in Kisumu and Siaya Counties.

Hakuna hatari yoyote kwa washiriki wa utafiti huu. Hakuna faida ya haraka kwa washiriki wa utafiti huu, hata hivyo kwa muda mrefu, data zilizokusanywa katika utafiti huu zinaweza kuathiri upatikanaji wa huduma za afya katika kaunti/kata ya Kisumu na Siaya .

6. Compensation

There will be no compensation to participants of this survey, however their time and efforts are greatly appreciated.

Fidia/Malipo

Hakutakuwa na fidia/malipo kwa washiriki wa utafiti huu, hata hivyo muda wao na jitihadi zao zinathamini sana.

7. Rights Notice

In an endeavor to uphold the ethical standards of all SIT ISP proposals, this study has been reviewed and approved by a Local Review Board or SIT Institutional Review Board. If at any time, you feel that you are at risk or exposed to unreasonable harm, you may terminate and stop the interview. Please take some time to carefully read the statements provided below.

Taarifa ya Haki.

Katika jitihada za kuzingatia viwango vya maadili ya mapendekezo yote ya SIT ISP, utafiti huu umepitiwa na kupitishwa na Bodi ya Mapitio ya mitaa au Bodi ya Taasisi ya SIT. Ikiwa wakati wowote, unahisi kuwa uko katika hatari au umewekwa kwa madhara yasiyo ya kawaida, unaweza kusitisha na kuacha mahojiano. Tafadhali chukua muda wa kusoma kwa makini maneno yafuatayo hapa chini.

- a. **Privacy** - all information you present in this interview may be recorded and safeguarded. If you do not want the information recorded, you need to let the interviewer know.

Faragha - habari zote unazowasilisha katika mahojiano haya inaweza kurekodiwa na kulindwa. Kama hutaki hizo habari zirekodiwe, unaeza kujulisha mhojiwaji.

- b. **Anonymity** - all names in this study will be kept anonymous unless the participant chooses otherwise.

Kutokujulikana – majina yote katika utafiti huu yatahifadhiwa bila kujulikana isipokuwa kwa idhini ya mshiriki.

- c. **Confidentiality** - all names will remain completely confidential and fully protected by the interviewer. By signing below, you give the interviewer full responsibility to uphold this contract and its contents. The interviewer will also sign a copy of this contract and give it to the participant.

Siri – majina yote yatabaki siri kabisa na kulindwa kikamilifu na mhojiwaji. Kwa kutia sahihi hapa chini unampa mhojiwaji jukumu kamili la kushikilia mkataba huu na yaliyomo ndani yake. Mhojiwaji pia atatia sahihi nakala ya mkataba huu na kumpa mshiriki.

Participant's name printed
Jina la mshiriki

Interviewer's name printed
Jina la mhojiwaji

Participant's signature and date
Sahihi ya mshiriki

Interviewer's signature and date
Sahihi ya mhojiwaji

APPENDIX – ARTICLE 2 – SAMPLE SURVEY

For Completion by Researcher ONLY – DO NOT WRITE IN BOX

Participant ID Number: _____

Date: _____

County: _____

Demographic Information:

Maelezo ya Idadi ya watu:

Address: _____

Unakaa wapi?

Age: _____ Gender: Male __ Female __

Unamiaka ngapi?__ Jinsia gani. Mwanamme __ Mwanamke__

No. of Children (under 18) in House: _____ No. of People Living in House: _____

Unawatoto wangapi chini ya miaka 18? Una watu wangapi kwa nyumba yako?

Approximate Household Salary: _____

Wewe na mume au mke wako mnapata mshahara wa pesa ngapi?

Health Questions:

Maswali ya Afya:

When you or someone in your family falls ill, where do you seek healthcare?

Wakati wewe au familia yako anagonjeka, mnapata usaidizi wakimatibabu wapi?

- Dispensary (zahanati)
- Public Healthcare Facility (kituo cha afya cha umma)
- Private Healthcare Facility (kituo cha afya cha kibinafsi)
- Traditional Healer (daktari wakienyeji/ miti shamba)
- Other (please explain) _____
(mahalipengine – eleza)

What is the name of the facility at which you seek care? _____

Jina la kituo ni gani?

Why do you choose to seek care at this facility? Choose all that apply.

Kwa nini unachagua kutafuta usaidizi katika kituo hiki?

- Near (Karibu)
- Offers quality service (Inatoa huduma bora)
- Affordable (Bei nafuu)
- Referral (Rufaa)
- Other (please explain) _____
(mengine – Eleza)

For the following questions, circle the answer that best applies to the statement.
Kwa maswali yafuatayo, duru jibu ambalo linatuka zaidi kwa kauli iliyopewa.

Was it cheap? Yes/No
Ilikuwa ni bei nafuu? Ndio au Hapana

Is the facility near your home? Yes/No
Kituo cha afya iko karibu na nyumba yako? Ndio au Hapana

Were you referred to this hospital? Yes/No
Ulipewa rufaa kwa hospitali hii? Ndio au Hapana

This facility was clean.
Kituo cha afya hiki kilikuwa safi.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Sikubali sana	Sikubali	Katikati	Nakubali	Nakubali sana

The patient flow at this hospital was good and I did not have to wait very long for service.
Mtiririko wa mgonjwa katika hospitali hii ilikuwa nzuri na sikupaswa kusubiri muda mrefu kwa huduma.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Sikubali sana	Sikubali	Katikati	Nakubali	Nakubali sana

The necessary drugs and treatments I needed were readily available at this facility.
Matibabu na dawa muhimu nilizohitaji zilipatikana kwa urahisi katika kituo hii cha afya.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Sikubali sana	Sikubali	Katikati	Nakubali	Nakubali sana

The staff were polite, friendly, and did their job well.
Wafanyikazi walikuwa wenye heshima, wa kirafiki na walifanya kazi yao vizuri.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Sikubali sana	Sikubali	Katikati	Nakubali	Nakubali sana

How far away is your healthcare facility from your home? _____

Kituo hiki kiko mbali kiasi gani kutoka nyumbani?

How long does it take you to reach the healthcare facility? _____

Inakuchukua muda gani kufika katika kituo hiki?

Do you find healthcare to be affordable? Does your family experience any economic shock when you need to pay for healthcare? Please consider all factors, including cost of transportation, your time, cost of services, and any other materials you may need to purchase for treatment.

Unaweza kulipia huduma katika kituo hiki? Familia yako inateseka kifetha wakati unahitaji kulipia huduma katika kituo? Tafadhali angalia mambo yote, ikiwa ni pamoja na gharama za usafiri, wakati wako, gharama za huduma, na vifaa vinginevyo unaeza hitaji kununua kwa ajili ya matitibabu.

Do you have health insurance? Yes ___ No ___
 Una bima ya afya? Ndiyo au Hapana
 If no – How do you typically pay for healthcare?
 Ikiwa hapana – unalipia matibabu vipi?

If you have delivered babies, where have you deliver your MOST RECENT baby?
 Ikiwa umezaa watoto, ulizalia wapi?

- Home (nyumbani)
- Public Healthcare Facility (Kituo cha afya ya umma)
- Private Healthcare Facility (Kituo cha afya ya kibinafsi)
- Other (please explain) _____
 (Mengine-eleza)

Why did you choose to deliver in this setting?

Kwa nini ulichagua kuzaliaa pale?

- It was an emergency (Ilikuwa dharura)
- Nearby (Ilikuwa Karibu)
- Referral (Nilipewa rufaa)
- Quality service (Huduma bora)
- Familiarity with the hospital/staff (Ujuzi na hospitali/mfanyikazi wa hospitali)

Where would you choose to go to be tested for TB?

Ungechagua kuendawapi kupimwa TB (kifuakikuu)?

- Your typical healthcare facility (katika kituo chako cha kawaida)
- A different healthcare facility (kituo tofauti)

Why did you make this choice? Select all that apply.

Kwa nini ulifanya uchaguzi huu? Chagua yeyote yanayotumika.

- I am familiar with the staff at this facility (Nikona ujuzi na mfanyikazi katika kituo hiki)
- The service at this facility is high quality. (Huduma katika kituo hiki iko bora zaidi)
- I wish not to run into any people I know while being tested. (Singependa kukutana na watu najua nikiwa napimwa)
- Other (please explain) _____
(Mengine- Eleza)

Where would you choose to go to be tested for STIs?

Ungechagua kuenda wapi kupimwa magonjwa yazinaa?

- Your typical healthcare facility (katika kituo chako cha kawaida)
- A different healthcare facility (kituo tofauti)

Why did you make this choice? Select all that apply.

Kwa nini ulifanya uchaguzi huu? Chagua yeyote yanayotumika.

- I am familiar with the staff at this facility (Nikona ujuzi na mfanyikazi katika kituo hiki)
- The service at this facility is high quality. (Huduma katika kituo hiki iko bora zaidi)
- I wish not to run into any people I know while being tested. (Singependa kukutana na watu najua nikiwa napimwa)
- Other (please explain) _____
(Mengine- Eleza)

Where would you choose to go to be tested for HIV?

Ungechagua kuenda wapi kupimwa UKIMWI?

- Your typical healthcare facility (katika kituo chako cha kawaida)
- A different healthcare facility (kituo tofauti)

Why did you make this choice? Select all that apply.

Kwa nini ulifanya uchaguzi huu? Chagua yeyote yanayotumika.

- I am familiar with the staff at this facility (Nikona ujuzi na mfanyikazi katika kituo hiki)
- The service at this facility is high quality. (Huduma katika kituo hiki iko bora zaidi)
- I wish not to run into any people I know while being tested. (Singependa kukutana na watu najua nikiwa napimwa)
- Other (please explain) _____
(Mengine- Eleza)

APPENDIX – ARTICLE 3 – FIELD JOURNAL**Week One:**

Preparations for survey distribution. Survey and consent form were translated into Swahili. Survey and consent form were printed. Met with CHV Asha to discuss the plan for survey distribution. Discussed payment, consent form, roles, schedule, and target population. Went to Obunga with Asha for survey distribution. Survey distribution was successful. Over two days in Obunga, 17 participants were collected. Females were more common as they were in the house at the times we were going. Data was electronically recorded throughout the week. Met with CHV Tom to discuss the plan for survey distribution throughout Manyatta. Went to Manyatta with Tom for survey distribution. Survey distribution was successful. 18 participants were collected.

Week Two:

Traveled to Simenya Village for survey distribution. Spent 3 days in Simenya Village surveying participants. Over the 3 days, 25 participants were collected.

Week Three:

Went to Nyalenda with CHV Tom and CHV Madeleine for survey distribution. 18 participants were collected. The remainder of the week was spent analyzing all survey data through Microsoft Excel.

Week Four:

Data analysis continued. ISP final paper written. ISP final presentation composed.

APPENDIX – ARTICLE 4 – SCHEDULE

Week #	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<i>1 (April 8-14)</i>	ISP Prep – including printing of surveys, final translations, and communications with CHWs	Survey Distribution - Obunga	Data Analysis	Survey Distribution - Obunga	Data Analysis		Survey Distribution - Manyatta
<i>2 (April 15-21)</i>		Preparation for Simenya	Survey Distribution – Simenya Village			Data Analysis	
<i>3 (April 22-28)</i>	Survey Distribution - Nyalenda	Data Analysis					
<i>4 (Apr. 29-May 5)</i>	Work on Final Paper				Work on Final Presentation		Leave for Jinja, Uganda
<i>5 (May 6-8)</i>	ISP Presentations	In Jinja	Return to Kisumu				

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