OneSight Household Survey - 2017:
Third Draft Report of OneSight Scorecard Study

By

University of The Gambia

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List of Acronyms/Abbreviations

BI- Bamako Initiative

CRR – Central River Region

DRF- Drug Revolving Fund

FGD – Focused Group Discussion

GBA – Greater Banjul Area

GDP – Gross Domestic Product

GMD – Gambian Dalasi

HFPI – Health for Peace Initiative

IAPB – International Agency for the Prevention of Blindness

KMC – Kanifing Municipal Council

LGA – Local Government Area

LRR – Lower River Region

NBR – North Bank Region

NGO – Non Governmental Organization

NIHB – Non Insured Health Benefits

PHC- Primary Health Care

P&L – Profit and Loss Report

PPS – Probability Proportionate to Size

URR – Upper River Region

WCR – West Coast Region

WHO – World Health Organization

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Executive Summary

This Scorecard study was commissioned by OneSight and implemented by a Team of Researchers from the University of The Gambia. The purpose of the study was to assess the intervention of OneSight with respect to ***Awareness, Access*** and ***Affordability*** of their services in The Gambia and the perception of eye care in The Gambia. More specifically the scorecard assesses the level at which people are aware of the existence, the activities and the services offered by OneSight in The Gambia. The study also assessed the extent and eases of access to the vision centers by people across the country and finally, assessed the level of affordability of services and eye care products to the people across Local Government Areas.

By and large, the scorecard study covered 30 districts across the country in all the regions with a sample size of 3300 respondents in addition to 250 youths interviewed. The research employed both quantitative and qualitative methods, administered structured questionnaire on respondents and used SPSS for data analysis. The Focus Group Discussions were conducted in 28 Districts out of 30 of which Focus Group Discussion Guide was used respectively. The issues discussed were centered on the three key variables such as; Awareness, Access**,** and Affordability with the participants to facilitate comparison with the quantitative questionnaire. In this process, 320 participants participated with 180 males and 140 females respectively.

The findings show that there is a lot of convergence between the two methods, when they were triangulated for most of the study variables. Thus, both findings signify the level of dependability, soundness and consistency of the study design.

The study used almost even proportion of males (50.4%) and females (49.6%) as sample of the scorecard. The youth dimension was also adhered to of which, the average age of the study participants was, 40 years old. 58% of respondents had some form of education. The respondents were from diverse ethnic groups and regions across The Gambia.

Generally, the study revealed that majority of the sampled respondents is aware of refractive error i.e. about 90%. Their major source of information about eye care issue was through radio, other important sources of information are from healthcare workers and television.

Most of the respondents who are aware about eye sight related problem, typically obtained information through Government clinics, ***only 2.8% got their information from OneSight.***

It was also discovered that 94.6% of the respondents sought eye care treatment from health facility as opposed to home or local treatments. With regards to access 80% have access to formal eye care centers whiles less than 50% revealed that the health facility is within their village. The scorecard respondents responses on affordability was insightful, their willingness to pay for a pair of corrective glasses ranged from GMD 0 (free) to GMD 20,000 (willingness to pay high amount to restore sight) however the national average on willingness to pay for a pair of corrective glasses was GMD 261.46 ($6).

The consultative meeting held with stakeholders in the eye care health sub-sector revealed that OneSight has immensely contributed and impacted on the sector even though they are not physically invisible. One expert in the sector remarked ***"OneSight are unsung hero of eye care in The Gambia".***

1. Introduction and Background

1.1 Country Background

The Gambia is a small country lying on the Western Coast of Africa within the latitude of 13 to 14 degrees north of the equator. It is a narrow strip of land divided into North and South Banks by The River Gambia, which extends inland for more than 400 kilometres on both banks of the river with varying widths ranging from 24 to 28 kilometres away from the borders with Senegal, covering an approximate land area of about 11000 square kilometres. It is bordered on the North, South and East by the Republic of Senegal and on the West by the Atlantic Ocean. The country has a population estimate of about 1.88 million (2013 census) projections, with a population growth rate of 2.7 percent per annum and density of 171/km^2, hence the Gambia is one of the most densely populated in Africa. The Gambia is a multi-ethnic and multi-racial society with an unparalleled degree of ethnic, racial, and religious tolerance with civil tranquillity.

As the basis for most development in the world, health constitutes a major priority supporting the socioeconomic development of any country. It is a vital requirement for individual survival and economic development in The Gambia like any other country. Yet, The Gambia has never had a consolidated health insurance policy to guide and manage the health of the population. Beginning in the 21st century, the Republic of The Gambia embarked on developing a National Health Insurance Policy, employing a consultative and inclusive process. Therefore, a clear need arises for the Government of the Gambia to put in place a National Health Insurance Policy, which provides a framework for sustainable and optimal use of health services for The Gambian society and the Gambian economy as a whole.

The vision of the National Health policy is to provide quality and affordable Health Services for All By 2020. The goal of the National Health Policy is to reduce morbidity and mortality to contribute significantly to quality of life in the population.

The major constraints facing many developing countries including The Gambia in the health sector management are many and varied. Generally, characterized by the lack of a strong dynamic and sustainable health policy that is all inclusive. This is further aggravated by the

absence and/or appropriate control mechanisms in particular; environmental sanitation, political interference and acceptable legal framework in health management.

On the other hand urbanization, mainly rural population drift to urban areas, with both its pull and push effects and other concomitant problems is having a heavy toll on health service delivery with meager resources retarding development and in effect increase health challenges. This is mainly due to low national income aggravated by inadequate investment to promote economic growth, hence centralization of development in most developing countries, which encourages rural urban drift. Thus to harness both scenarios will call for an effective economic reform to promote growth with strong health policy accompanying dynamic institutionalization of health services, with adequate partnership with programme led performance to monitor productivity over time.

A given health policy should incorporate clear provisions for transparent and accountable framework for better utilization of the most critical and limited health resources of the country. Such a framework should embody effective controls and regulations by a planning system that recognizes rights but at the same time apply necessary restrictions on certain health related issues. In the specific Gambian situation; such controls are not only violated by the general public, but inclusively local and central government thus making a watershed of meaningful planning and health utilization.

A meaningful and appropriate health policy for The Gambia should be broad based for both rural and urban areas. It requires adherence by the central government without due interference so that local governments and tertiary institutions as well as the general public will comply with the provisions. This is fundamental to any successful implementation of a National Health Policy. This would include compliance with specified health service uses. It is fair to say that controls and regulations must be executed timely, without undue delays to the public with affordability, accessibility, awareness and in an equitable manner.

In light of the above, this research is in response to a request by OneSight for a consultancy to conduct an impact evaluation of their contribution with respect to “awareness”, “affordability” and “accessibility” of their intervention. The approach the research team adopted is herein set out as the basis of the Scorecard which falls within the professional competence and social discipline of the team who executed the consultancy successfully.

1.2 Background to the Project

Considering the staggering need for vision care, 733 million adults and children worldwide suffer from vision loss. Out of these, 563 million need a pair of glasses to restore their sight. It was out of this need that OneSight, an independent nonprofit organization, is dedicated to solving this global crisis by providing access to quality vision care, eyewear and sun protection to those in need around the world since 1988. The organization has since its inception impacted on more than 8.7 million lives across 41 countries around the world. The mission of the organization is to provide access to quality eye care services and eyewear in underserved communities worldwide. Its Vision is to eradicate the global vision care crisis in our lifetime.

OneSight International is the parent organization of OneSight Gambia. The organization believes sustainable infrastructure is essential to empowering communities for long-term success. As the parent organization and in upholding their belief, they work closely with local governments, health departments, school districts, and ophthalmic partners, equipping them to run vision centers in their own communities. OneSight defines sustainability in terms of financial stability and social-behavioral change for all its stakeholders: permanent vision care centers track financial stability by a true Profit &Loss Report (P&L), governments invest in the impact vision care can provide, companies offer products at true cost, skilled volunteers empower local staff through training, and patients pay an affordable price determined by the local market. Central manufacturing and supply chains support local demand for clinic supplies and glasses.

The Gambia is the smallest country in mainland Africa with an estimated population of about 1.88 million (2013 census) projections. The country is among the poorest countries in the world ranked 151 out of 160 on the Human Development Index Report (2016) with 1/3 of the population living under the international poverty line of $1.25/ day and 2/3 below $2.5 per day. The country could boost of only 1 ophthalmologist and 3 optometrists for the entire country. According to statistics, 1 in every 3 Gambians needs refraction error correction but only half of them are aware they have a problem. Due to the level of poverty of the people cost of a pair of glasses is considered prohibitive. In addition although The Gambia has a

long history of providing eye care services most specifically in cataract and trachoma, however not in refractive error.

Health Services is a critical component of development in any country, without which there is hardly any meaningful development. As the adage goes, "a healthy nation is a wealthy nation". It is against this backdrop that the Government of The Gambia in collaboration with development partners and NGOs over the years has been striving to provide quality health services to its populace. Several attempts have been made from the first republic to date, to improve the delivery of health services in order to better the health of the population as a way of reducing the unacceptable prevailing morbidity and mortality rates due to both communicable and non-communicable diseases among other factors.

These efforts are evident through various initiatives undertaken such as; the establishment of "Health Management Information System", the introduction of "Cost Recovery Program" started in 1988, which established the "Drug Revolving Fund" and the introduction of user fees as a form of health financing. Also "Bamako Initiative", introduced in 1993 as a further development on the Cost Recovery Program and the recent research conducted in 2010 to introduce a National Health Insurance Scheme currently under review, Global Fund for Malaria Tuberculosis and HIV/AIDS, OneSight Programme among others. These are further complemented by building more health facilities (Tertiary, Major and Minor) health centers across the country with the establishment of Medical school at University of The Gambia in 1999 in order to improve and provide quality health education and services at all levels.

However, the health sector over the years has been under great pressure due to a number of factors, mainly; the high population growth rate, inadequate financial and logistic support, shortage of adequately and appropriately trained health staff, the absence of a strong health research base to generate data for management, high attrition rate and lack of efficient and effective referral system.

These factors have seriously constrained efforts to reduce morbidity and mortality rates as a result health care delivery throughout the country has not lived up to expectation. The need to have a clear direction to quality of care requires a supportive organizational and strong research base to inform management and policy framework with a strong flexible and

knowledgeable leadership, able and willing to take informed risks (NHIS-Civil Service Research, 2010).

Consequently OneSight in line with its vision and mission and being fully aware of the challenges face by The Gambia in fulfilling this fundamental health issue launched its Gambia Initiative. In partnership with Sightsavers UK, and the government of The Gambia, OneSight established its first Sustainable Vision Care Project in The Gambia.

1.3 Context and Significance of the Scorecard Study

The Scorecard study has been commissioned by OneSight to assess the impact it has made in the Gambia in terms of three main pillars amongst which are, ***awareness, access***, and ***affordability***. Over the last four years, huge investment and efforts have been made by OneSight and its partner institutions to create awareness and provide accessible and affordable eye care services to Gambians across the country. However, since its launch in The Gambia, it has not conducted any empirical studies to assess the impact it has made on people on the three main thrust of this study, hence the commissioning of this study.

The significance of this study cannot be overemphasized for the following reasons:

1. It will establish insights on the level of access, awareness and affordability of the services and products of OneSight and inform future course of action for the organization in terms of programming, expansion, communication strategy, pricing etc.
2. It's outcome will inform and guide policy of OneSight
3. It will provide an empirical and independent finding for the first time into the impact of the OneSight's Eye Care services in The Gambia.
4. In order to support future policies, programming and planning efforts of OneSight in The Gambia, it is important to have an up to date information on the level of access, awareness and affordability of eye care services and products offered by the organization.

1.4 OneSight Objectives

The primary objectives of OneSight's intervention in The Gambia are to achieve:

- 80% aided or unaided awareness of problem among heads of households who can make financial decisions for household related to health care (target population);

- Non-heads of households to be surveyed too for information purposes since they may later become survey population during the longitudinal duration of the study – these will not be counted as part of the total survey population.

- 80% of target population aware of solution;
- 80% of target population aware of price;
  - <10% say they cannot afford them.
- Survey will be repeated every 2 years with objective to track change in awareness over time.

1.5 Research Purpose

The purpose of this study was to assess the impact of the OneSight project in terms of; awareness, accessibility and affordability on the lives of Gambians since the commencement of its operations, thus, conducted dialogue with the project target beneficiaries and other stakeholders across the country which was of paramount importance to assess the impact of intervention bearing in mind the contribution of other players as well as to advise the government on future direction.

The need for this knowledge is an urgent priority as a development problem in order to contribute effectively to national development and also to inform policy. A better understanding of broader sight related issues will be an essential ingredient for the formulation of an all-inclusive National sight Policy that is sustainable.

1.6 General and Specific Objectives

1.6.1 General Objective

The overall objective of this study was to assess the impact of the project in terms of; awareness, accessibility and affordability on the lives of Gambians since the commencement of its operations.

1.6.2 Specific Objectives

On a more specific note the study envisages to accomplish the following objectives:

1. To assess the level at which people are aware of the existence, the activities and the services offered by OneSight in The Gambia;

2. To assess the extent and ease of access to the vision centers by people across the country;
3. To assess the level of affordability of the services and product of OneSight to the people across the country.

2. Literature Review

2.1 Awareness

In a study conducted in Rwanda University on Students'utilization of eye health care services. Effort was made to ascertain the relationship between students' knowledge on eye diseases and utilization of eye care services. The result illustrated a co-efficient to determination of 42.2%, thus implying that there is a moderate relationship between knowledge and eye care services utilization. However it was pointed out that lack of awareness or knowledge was not the only factor causing barrier to utilization of eye health care facilities but other factors such as accessibility, affordability and availability (Achugwo, Ekemiri & Amiebenomo, 2016)

(Brise & Leeuw, 2015) noted awareness is a key determinant in accessing care. As pointed out by them, one has to be aware of a service in order to access it. They further buttressed the three significance of awareness: (1) service awareness (2) eye-care insurance awareness and (3) awareness about the importance of eye care, these according to them can influence if and how a patient accesses care. For their study participants (University students who work in health eye care sector) generally felt there was some awareness about the services available. However, the question surrounding the frequency and location of services elicited significantly varied responses, suggesting that awareness might not be as high as the participants perceived. As their study pointed out some of the participants may be aware of the existence of eye care service but may not be aware of its location and how frequent the service is made available to patients. They demonstrated that another awareness barrier was lack of knowledge about how Non-Insured Health Benefits (NIHB) functions. The significant gap in awareness regarding NIHB may deter access to service. Because of the poverty level, fear of incurring costs may prohibit even preliminary inquiries about eye-care services. The study participants expressed concern about whether individuals were fully aware of the importance of eye care. As health care workers, the participants were acutely aware of the importance of eye care for vulnerable populations, such as children, diabetics, and seniors; however, they were unsure if this awareness extended to the general community. Although

there was a generalized awareness about eye care health services, a significant amount of confusion and concern among participants remained.

Education can aid awareness and develop perception, (Frazier & Kleinstein, 2009) cited that the level of education can influence access to vision, eye and health care because it may affect the ability to obtain, understand and use information, and influence perceptions about health in general. They further buttressed the individual with lower educational level may experience confusion about medication use, have difficulty reading printed material, or have difficulty comprehending health care information. Given the aforementioned they noted that, the lack of knowledge about the importance of vision and eye care can prevent a person from recognizing signs and symptoms of vision and eye disorders and disease, obtaining regular eye exams, complying with prescribed treatment regimens and adhering to follow-up care. In conclusion they pointed out that, the ability to receive health care information and participate in one's own care is generally referred to as health literacy. Lack of knowledge about eye diseases and systemic conditions that have visual consequences can prevent a person from seeking eye care. People may have the perception that if they had an eye disease, they would have symptoms, and that is not always the case. Hence the need to be aware of health issues through health literacy, which in some cases can be aided by education.

2.2 Access

Access to eye care services was measured by the distance to the nearest vision centers, mode of transportation to and from the eye care service centers, time taken to and from the eye care service centers and the cost involved in travelling to and from the nearest vision centers to communities. The findings revealed that, all these gives cost as the overriding factor to have access to affordable vision care.

In the Gambia, majority of eye care services are located in the urban areas. Rural dwellers tend to travel far to access the eye care services. Poor road conditions, lack of eye care facilities and personnel made access very low in the rural areas. This has resulted in many rural communities still relying on alternative sources of care including traditional healers and patent medicine sellers, who serve as frontline health workers. (Fafowora, 1996).

Investment in Education and Health of the population are important in increasing the productivity of a nation. Problems related to the eye can have a severe impact on the productivity of individuals, households, community, and the overall GDP of a nation. One eye health related problem is refractive errors. "Refractive error is present when the eye cannot focus images clearly, resulting in blurred vision. The most common types of refractive errors are (1) myopia (nearsightedness/shortsighted), (2) hyperopia (farsightedness), (3) astigmatism (irregularly curved cornea), and (4) presbyopia (inability to focus on near objects that occurs with aging). Refractive errors are not preventable, but can be treated easily with corrective eye glasses or contact lenses and, in some cases, corrective surgery"[1]. Refractive errors and cataracts are the leading causes of avoidable blindness and visual impairment.[2] Uncorrected refractive errors and cataract are most commonly found in rural, often remote, underdeveloped areas in most developing countries, in particular The Gambia as recorded by the findings of this scorecard survey.[3]

In 1999, WHO and the International Agency for the Prevention of Blindness (IAPB) launched a global initiative called Vision 2020 to eliminate the main causes of avoidable blindness by year 2020, and give all people in the world "the right to sight". The World Health Organization estimates that 333 million people are blind or visually impaired[4], and that 153 million, or nearly half of the global burden of blindness and vision impairment, is due to uncorrected refractive error.[5] The WHO measurement of refractive error encompasses myopia (nearsightedness), hyperopia (farsightedness), and astigmatism.

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[1] The National Eye Institute. Facts about Refractive Error. Content last reviewed October 2010. Available at: http:// www.nei.nih.gov/health/errors/errors.asp. Accessed March 11, 2012.

[2] Dandona R, Dandona L, Srinivas M, Giridhar P, Vilas K, Prasad MN, et al. Blindness in the Indian state of Andhra Pradesh. Invest Ophthalmol Vis Sci. 2001; 42:908–16. [PubMed]

[3] Thylefors B. A simplified methodology for the assessment of blindness and its main causes. World Health Stat Q. 1987; 40:129–41. [PubMed]

[4] Resnikoff S, Pascolini D, Etya'ale D, Kocur I, Pararajasegaram R, Pokharel GP, Mariotti SP. Global data on visual impairment in the year 2002. Bull World Health Organ 2004; 82: 844–851. Medline, ISI

[5] Sight test and glasses could dramatically improve the lives of 150 million people with poor vision. 2006 [cited 2007 April 6]; Available from: http://www.who.int/mediacentre/news/releases/2006/pr55/en/index.html

The World Health Organization recently included refractive error in its calculations for the global burden of blindness and impairment, bringing vision problems from 9th place globally to the 3rd place as one of the leading causes of disease and disability worldwide. Refractive error makes up the largest percentage of overall vision problems, is the easiest of all vision impairments to treat, and is also one of the most cost-efficient of eye care interventions. The cost of the elimination of blindness and impaired vision due to uncorrected refractive error has been estimated at US$5 per person in need of eyeglasses, including the development of the necessary infrastructure, training of necessary personnel, and supply of glasses.[6] The cost of providing eye care to the 300 million people who are blind or visually impaired because of uncorrected refractive error by the year 2020 would be $1.5 billion dollars, a mere $115 million a year for the next 13 years.[7]

In providing access to eye care services different models are employed. The Charitable model provides free eye glasses. Luxottica's Gift of Sight, provides free eye exams and eyeglasses to thousands of individuals during two weeks mission in developing countries. Social Entrepreneurship model links social entrepreneurship with the provision of health services. The Scojo Foundation utilizes a market-based approach to train women to become 'vision entrepreneurs' and sell eye care products within their own communities. Scojo sells glasses to vision entrepreneurs for around $2, and vision entrepreneurs in turn sell the glasses to customers for $3-5 depending on location.

Access to eye care services affects its utilization by the public. Access to such services is affected by people not seeking eye care services, lack of eye care services and infrastructure, cost, lack of trained personnel, ignorance, poverty, gender, the distance to the nearest eye service provider, mode of transportation to and from the eye care service center, the time taken to and from the eye care service center and the cost involved in travelling to and from the nearest eye care service center.

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[6] Holden, Brien A Blindness and poverty: a tragic combination. Clinical and Experimental Optometry 9 (6), 401-403., Schlenther G, Holden B, Layland B. Unpublished report. International Centre for Eyecare Education.

[7] Brien A Holden (2007), Blindness and poverty: a tragic combination Clinical and Experimental Optometry 90 (6), 401–403.

A recent study found that over two thirds of adults over age 40 in a rural Indian population with low vision secondary to cataracts, glaucoma, and refractive error had never sought eye care, while another showed that 90 percent of the people seeking eye care in poverty-stricken areas in Sri Lanka had similarly had no previous eye care (Chandrashekar TS, Bhat HV, Pai RV, Nair SK. Coverage, 2007).

Access to eye services varies by gender. Foutouhi et al (2006) reported that women in Iran were more likely to seek eye care services than men. Also, Palagyi et al (2008) reported that women in Timor-Leste with either low vision or blindness were more likely to seek treatment than men. Schaumberg et al (2000), also reported that women tended to have eye examinations more frequently than men. Women were more careful about their eye health than men thereby suggesting a gender influence on utilization of eye care services (Ja, E, and Go, O., 2014).

In many rural areas of the world, poverty is a major issue, hence residents are not able to afford the cost of eye care services and therefore conditions which could have been treated at an early stage are not attended to and may result in low vision and blindness (Nedgwa et al (2005). Nedgwa et al (2005) reported that lack of money was one of the main barriers to eye care use in Kenya. Ignorance and cost of treatment are barriers to uptake of vision services in Nigeria (Ja, E, and Go, O., 2014).

Distance as a barrier could also be reduced by setting up outreach programs in rural areas and providing transport from villages direct to the hospital and back (Ja, E, and Go, O. , 2014). Availability and proximity were accounted for as hidden charges which stand also as a barrier to eye care (Khan, 2004).

Lack of trained personnel and infrastructure has been identified as barrier to refractive error corrections in Southern India (Dandona R, Dandona L, Naduvilath TJ, McCarthy CA, Rao GN, 2000). Non-availability of low cost, good quality low vision services and lack of experts or training to support services have hindered provision of low vision care services in the developing countries (Khan, 2004)

2.3 Affordability

Given the general level of poverty, coupled with the high cost of health care services in The Gambia, this has resulted in making health care services exorbitant for good number of Gambians and residence alike. The cost of eye health care can be divided into direct cost e.g. consultation fee, cost of medication/glasses etc. and indirect cost e.g. cost of transportation to and from eye clinic, cost of food/sustenance during eye treatment etc. this study assessed the level of affordability of eye health services and product of OneSight to the people across the country as stipulated in the objective of the study, with a view of making inference on what is perceived as affordable eye health care services.

Affordability of healthcare services including eye care service is influenced by the income of the consumer (eye patient), the cost of the eye care services and other socio-demographic factors which may vary from developing to developed nations. (Ntsoane & Oduntan, 2010) buttressed as highlighted by Naidoo et al., that if eye care service is free, there still exist some hidden cost associated to eye care treatment making the cost of treatment unaffordable to poor. Their paper further noted that poverty is a major issue affecting affordability eye care health services, hence patients from poor economic background are not able to afford the cost of eye care services and therefore conditions which could have been treated at an early stage are not attended to and may result in low vision and blindness, thus making the costs of treatment exorbitant and beyond reach of the poor and marginalized of society.

(Ntsoane & Oduntan, 2010) reviewed numerous studys by various authors identifing issues related to barriers to affordable eye care services in Ethiopia, Kenya, Nigeria and The Gambia. They pointed out that the prevalence of visual impairment is high in Ethiopia and eye care services utilization is limited, the main barrier has been attributed to the indirect costs of the services which the patient must incur before treatment. Habte et al., suggested that indirect cost of surgery was one of the main barriers to uptake surgical treatment for "trachomatous trichiasis" in the North of Ethiopia. Rabiu and Mpyet et al., reported that cost was the most common reason for not seeking treatment for cataract in parts of Nigeria. Likewise, Nedgwa et al., reported that lack of money was one of the main barriers to eye care services use in Kenya; and in The Gambia, the most frequently identified barrier to uptake of cataract surgery was cost. The aforesaid demonstrates that costs of treatment both direct and indirect costs are major obstacle to patients acquiring treatments.

A study on the barriers to utilization of eye care services in rural communities in Edo State, Nigeria (Ebeigbe & Ovenseri-Ogbomo, 2014), identifed some modalities which can be utlized to make eye care affordable and reduce its cost. They noted that implementing different pricing mechanisms to make sure that the poor can be treated even if they cannot pay, will enhanced affordability of eye care treatment for the poor. According to their paper distance as a barrier could also be reduced by setting up outreach programs in rural areas and providing transport from villages direct to the hospital and back. The ability of the eye care providers to ensure community participation and to provide quality eye care during outreach programs would efficiently market the eye care services. Hence these outreach services will increase the goodwill and reputation of eye care service providers, servicing as a significant social capital for them while at the same time making eye care health services not only accessible but also affordable to the poor and deprived.

According to (Pradham, 2011), in a study of affordable eye care models for developing countries pointed out the three core principles for any category of hospital be it small or big are as follows: firstly, the hospital has to maintain high volume, high quality and affordable service facility to optimize the resources available (scale economics). Secondly, the hospital has to reach out to the population and do proactive screening for eye conditions to ensure a regular flow of patients to the hospital and also for early detection and early treatment to avoid blindness in the population (creating demand for service utilization) and finally, the hospital has to ensure a regular flow of patients and optimum utilization of the capacity of the hospital (resource optimization). These three core principles are apt for ensuring that developing countries ensure the eye health care services reach huge amount of patients and low cost to the hospital there by making the services affordable to patients. Secondly outreach program will aid early diagnoses and treatment while at same time create demand and increase demand for eye care services. Finally the last principles is to ensure that eye care facilities and resources are utilized effectively and efficiently.

(Lindfield & Foste, 2008), in their study noted a range of issues on affordable eye care services. They also raise some salient questions on affordability. They highlighted that affordable eye care services depends both on the price of a health intervention and on the financial means of the person or organization paying for it. They further went on to explain that the cost of the intervention or service, and therefore its price, should be kept as low as

possible through efficient business practices, e.g. high productivity and no wastage by only using what is essential for quality services delivery. Their paper pointed out that health care can be paid for in several ways: by the government, by the user or family, by another party such as a private company (e.g. health care insurance), or by a nongovernmental development organization. As noted by them the ability of these organizations or individuals to pay for health care will influence the level of service. However, if the care needs to be free to some sectors of society, they explained that the cost must be subsidized. Sometimes, a family member will pay the fees or the government may provide free health care. The study highlighted that, the more affluent in society may pay more for services, thereby subsidizing services for the poor through a multi-tier paying similar to social business model where the rich pay some fees for the poor while both the rich and poor receives the same services.

In the Community Eye Health Journal (Ward, 2006), addressed the issue of how sustainable is the Health For Peace Initiative (HFPI) eye program. He noted that The Gambia and Guinea-Bissau are implementing cost-recovery programs and the Bamako Initiative, with the perspective of ensuring the availability of all the essential drugs at all levels of health service delivery. Bamako Initiative as he pointed out is an initiative that aims to strengthen the primary health care services through cost-sharing and co-management. Under the aforementioned initiative, essential drugs are provided and made available to health facilities. Funds generated from the respective facilities are banked by their respective health committees and subsequently used to replenish drugs. Sightsavers International and Christian Blind Mission International were the main eye care supporters of the initiatives. Funds for the construction of the Regional Eye Centre were provided by the Sheikh Zayed Foundation, however he buttressed that, the project will face the challenge of meeting the running costs of the Regional Eye Centre. Hence sustainability of the program will be at jeopardy and thus create a problem for patients to afford the eye care services.

3. Methodology

3.1 Introduction

Instead of studying the entire population of The Gambia with its small size, OneSight scorecard study opted for a sample survey. The advantages of sampling against complete coverage are well documented in literature and will not be a discourse here. Nonetheless, it is worth mentioning that this option allowed for a wide range of issues to be studied. Overall, the Survey collected information on issues such as respondents' background information i.e. (household demographic characteristics), awareness of refractive errors, accessibility and affordability of eye care services among others.

3.2 Survey Design

Generally speaking the design of any sample survey, the sample size depends to large extent on three key factors:

1. The population size
2. The extent of variation in the population with respect to key characteristics of the study.
3. The degree of accuracy desired.

Further, the sample size needs to be sufficiently large to allow for meaningful analysis bearing in mind the objective of the study, which was mainly to provide baseline information from which, refractive errors will be monitored over time and space.

Against this backdrop, the sample size for this scorecard survey on refractive errors was set at n = 3000+10% over-quota. A base size of 3000 would give 95% confidence of a difference between 30% and 40% awareness. Total of 3300 target respondents – person in the family who can make all/some of healthcare related financial decisions for the household was deemed sufficient because it would provide enough cases for subgroup analysis.

3.2.1 Sample Selection

The basis for sampling in any research, surveys or study is the sampling unit of measurement. It is this unit that constitutes the population and also serves as the sampling frame of which samples are drawn from. Depending on the nature and distribution of this unit in the population, the sampling procedure to be applied is determined.

For this study, the unit of measurement is the household of which individual respondents were drawn from across the whole country within the selected districts and settlements in each of the sampled districts. Thus, both the research team and the organization commissioning the survey technically have chosen a sample size of 3300 households across the country in 30 districts. This is considered sufficiently large enough to cater for sampling errors.

- Cluster (Area) Random Sampling – This is the recommended approach for surveys among a large, geographically dispersed population based on multiple sources like Benet et al. in 1991 and Grooves et al. in 2009;
  - Ahmed (2009) suggests using as many clusters as feasible with a smaller cluster size to reduce sampling error. Hence in this case it was recommended sampling the 30 Districts.
- Cities/Districts:
  - About 25% of the country population peculiar to Gambia resides in Greater Banjul Area (GBA) which includes the Capital City of Banjul LGA and Kanifing LGA based on the CIA World Fact Book (July, 2015)
  - Urban Sampling: 60% of the population is urban where the following districts represent the majority of the urban population:
    - 25% sample from Greater Banjul (includes Banjul LGA and Kanifing LGA) – This constitutes 825 persons of 3300.
    - 35% sample from Kombo Central, Kombo North, and Kombo South in the Western Division – comprising 1155 persons of 3300.

Rural population accounts for the remaining 40% of the total sample size of 3300 that comprises 1320 had been sampled using the PPS (Probability Proportional to Size) approach from Benet et al. (1991) with the remaining districts. There were 10 clusters sampled in the Eastern region and 10 in the Western region within rural Gambia.

In order to have a sample that is representative of the country and to avoid conducting interviews in rural areas with scattered population, a multistage stratified cluster sampling was technically considered as the most appropriate and had been adopted with some adjustments in the urban areas without affecting the sample allocations proposed for the

urban. In each stage Probability Proportionate to Size (PPS) and random procedures were applied to arrive at the actual samples as indicated in the sample design. Thus, the Region is automatically the first stage, the second stage focuses on the Districts, and settlements within the districts in the regions was the third stage. In each of the selected districts, the settlements were further stratified into smaller clusters according to the population size of the settlements to allow for their representation into the sample using PPS. The final stage targeted individual respondents or any member of the family who can make all/some of healthcare related financial decisions for the household for interviews in each of the selected sample settlements across the districts within the regions. Hence, the households were the final unit of sampling for this scorecard study.

3.2.2 Operationalizing the Sample

All the settlements/villages in the 30 sampled districts were allocated to one of five population density categories:

Category 1 ≤ 250

Category 2 251 - 500

Category 3 501 - 1000

Category 4 1001- 2500

Category 5 >2500

These stratifications were absolutely necessary to ensure all settlements in the districts irrespective of their size are included in the selected sample villages. Using the above stratifications, Probability Proportionate to Size (PPS) and random procedures were applied to arrive at the actual samples as indicated in the sample design.

3.2.3 Selection of the Sample Villages

All settlements/villages in the sampled districts were computed from 2013 National population and Housing Census which served as the sampling frame for selecting sample villages in this survey. Overall 66 villages/settlements per district out of 1039 were selected from the rural districts with a population of 1320 respondents. Given the self-weighting approach recommended by Bennet et al. the same number of samples for each district was adopted. Thus, 66 respondents were selected in each of the clusters sampled of 10 in each (Eastern and Western) regions of the rural Gambia, East of GBA. Probability proportionate to

Size (PPS) was applied using the total number of villages across all sampled districts as the denominator multiply by 66 as the base. This gave us the total number of villages selected per district. Similarly, the same procedure had been used in selecting both the number of settlements and respondents per settlement. See Appendix 10

3.3 Questionnaire Design

Further to the finalization of the sampling process, questions for the survey were designed and shared with OneSight for consensus building and approval. The questions were designed based on the key variables of the study which includes: Awareness of refractive errors – (unaided and aided) awareness, Awareness of solutions to refractive errors, Access and Affordability to eye care services, in addition to the demographic and socioeconomic characteristics of the households.

3.3.1 Selection and Training of Field Staff

In this scorecard survey, fourteen enumerators, and three supervisors, most of whom accept two were recruited from the School of Business and Public Administration, University of The Gambia. Only two were recruited from outside who had previous experience in a similar research of this kind. All supervisors and field enumerators/interviewers were trained for three days. The training included interview techniques and also sample selection of the number of households to be interviewed in each selected sample villages within the districts using a random table numbers.

As part of the training exercise, the enumerators were trained on the use of mobile phone software (Magpi) to collect data. Further, enumerators were exposed to the essential elements of this software which include the following:

- Plain Text – Enumerators can use plain text to enter text information in text format;
- Integer – For the purpose of entering integer responses e.g. (0, 1, 2, 3…);
- Decimal – For the purpose of entering decimal value responses e.g. (0.04, 1.01 etc.);
- Drop Down – Enumerators can use drop down to select a single response from the options provided (multiple choice);
- Radio Button - Enumerators can select a single response from the options provided (multiple choice);

- Check Box – Enumerators can select several responses from the options provided (multiple choice);
- Date – Enumerators can use this option for entering date; and
- GPS Enumerators can use GPS to enter the location of respondents.

After taking the field interviewers through the questionnaire, it was also translated into the local languages – Mandinka, Fula, Wollof, Jola and Sarahule to ensure standard translation of questions by the enumerators for two days. The third day was used as a practical field exercise (pre-test) with the field team to identify the strength and weaknesses of the questionnaire designed, the time it would take to be administered (number of interviews per day/enumerator), the competence of the enumerators and some of the problems that could be encountered in the field and how they could be addressed. Then the questionnaire was finalized and forwarded to OneSight for comments and adjustments prior to its administration.

3.3.2 Data Collection

Prior to the data collection exercise, the field interviewers were divided into two teams of five and one team of four with one supervisor in each team. After finalizing the questionnaire and was approved by OneSight, the research team decided to enter the questions into Magpi, but the cost required to use the phone was not budgeted for and therefore recourse to administering the questionnaire manually. This took longer time than expected due to the length of the questionnaire.

Magpi makes it very easy and inexpensive to collect data using phones and tablets instead of using traditional questionnaire forms. One can create and configure electronic questionnaire on Magpi provided that the questionnaire form is not bulky. Using Magpi, your respondents can fill out the forms by phone messages (SMS) or Enumerators can administer the electronic form using mobile phone application. Magpi can stores, partially analyzes, and presents data in several formats. Magpi is a powerful and simple tool to help Researchers easily and inexpensively collect data in the field. OneSight survey questionnaire was comprehensive and detailed enough that requires the Consultants to purchase sufficient credit to upload the questionnaire form as a mobile phone-software. To upload the Magpi questionnaire form, the cost required was not budgeted for in the research proposal and the consultants resort to using

the conventional questionnaire. The abandonment of using Magpi resulted in extending the numbers of days and increased the cost of the data collection exercise.

The number of questionnaires administered per day per Enumerator ranges from 3 to 5 in the rural areas while in the urban areas it ranges from 2 to 4. Respondents were more willing to participate in the survey in the rural areas than the urban areas because in the urban centers the Enumerators had to book appointment with respondents, and wait for their call back before proceeding with its administration. The reason was that urban dwellers are working class and more economically well-off than their rural counterparts. The number of questionnaires administered also varies across the regions and across the interviewers. The total number of days for the data collection was 98 days.

3.3.3 Data Processing

Five data entry clerks were given two days intensive training so that they could understand the questions and responses provided as well as to familiarize themselves with the data entry screen. It was envisaged that data entry would start immediately after the end of data collection. However, this was not possible owing to numerous callbacks that had to be done after some physical editing of the questionnaire. These callbacks were numerous for various reasons:

- The questionnaire was lengthy
- Data collection was done during academic sessions when most of the students were busy and had little time to sit long hours for interviews.
- Most of the callbacks were done in the urban areas where most of the respondents belong to the working class and enumerators had to go by their time and pace.
- The scorecard survey was conducted during election process

3.3.4 Errors and Data Quality

An essential ingredient of any survey plan is the development of quality control systems and procedures, that is, means of assuring that the survey specifications were carried out satisfactorily. The most important aspect of quality control of this survey is the control over field data collection. This includes a number of elements such as review of questionnaire by field supervisors, observation of interviews by the coordinators, re-interview or second interviews of a selected household. This meant that supervisors checked on enumerators'

work for missing data, duplicated information, and inconsistent data. The coordinators visited each team at several points in the field during data collection on a number of occasions for consultations and progress reports. The coordinators also agreed and made a 10 per cent check on each team's work and identified some errors. Enumerators were alerted to rectify and take note of such problems before leaving the community. Each questionnaire was examined and checked again by a member of the research team at least once before it reached the head of the consultants. Missing or suspected data detected at this point resulted in the return of the questionnaire to the enumerators with a request to callback on the household and obtain or verify the data.

3.3.5 Data Cleaning and Analysis

By the end of the fieldwork, the service of a computer specialist was used to design the screen using Excel, SPSS and STATA for data processing which includes; data entry, data cleaning with a view to ascertain the validity of the information collected and preparation for analysis. Data cleaning was unduly delayed for many reasons which included the length of the questionnaire as mentioned earlier. Data analysis commenced as soon as data cleaning was completed. The analysis plan, which was approved by the team, formed the basis for preliminary analysis.

4. Main Findings of the SCORE CARD Survey (Quantitative Analysis)

4.1 Introduction

4.1.1 Descriptive Statistics

This community scorecard survey applied quantitative and qualitative methods to analyze the three key variables of concern: ***awareness, accessibility*** and ***affordability*** of eye care services in the Gambia. Overall, the baseline survey collected data from 3561 respondents across the seven administrative regions of the Gambia, of which variable on gender was responded to by 3539 consisting 50.4% males and 49.6% females.

About 200 questions were administered on 3561 respondents. The questions were directed to the heads of households targeting respondents that are responsible members who can give accurate information about household activities. This was achieved with the diversity of respondents across gender and age. The average age of respondents was 40, of this, 50.2% females, and 49.8% males respectively. About 54% were heads of households and 48% primary decision makers interviewed at households' level.

With respect to educational status of households, 58% of respondents had at least some forms of education, with more than 70% attaining secondary level of education.

The purpose of the survey was to establish baseline characteristics of households that would benefit from the services of government vision centers, supported by OneSight in terms of equipment and capacity building. Accordingly, apart from the broad socioeconomic characteristics collected in this survey, the questionnaire designed gathered information on three important thematic areas relevant to OneSight as mentioned above.

As indicated above, the quantitative method of data collection was complimented by qualitative approach using focus group discussions to have a better understanding of eye care problems in the Gambia. The quantitative data collection lasted over a period of 98 days. This was due to some delays and number of setbacks:

- Late start of the research process due to late disbursement of funds,
- Field work took longer than expected owing to the length of the questionnaire (10 pages)
- Data processing unduly delayed due to the time required for each of processes involved such as; screen design, data entry, data cleaning, analysis and report writing.

- Due to time constraint the research team had to do the FGDs alongside with their coordination role.

According to Owsley et al., (2006), using focus group methods to identify the perceived barriers to eye care and attitudes about vision and eye care among older African-Americans as well as among ophthalmologists and optometrists serving their communities in order to capture the perception of the beneficiaries. In light of these, this study also aimed to assess the situation of the refractive errors with regards to the above variables and the socioeconomic, cultural and demographic characteristics of respondents through FGD.

Table 1: Distribution of Respondents by Gender and Region

Region	Gender			
	Male	**Female**	**Total**	**Percent of Total**
Banjul	138	95	233	6.7%
Kanifing	546	583	1129	31.9%
West Coast	526	573	1099	31.1%
North Bank	169	208	377	10.6%
Lower River	45	37	82	2.3%
Central River	138	107	245	6.9%
Upper River	223	151	374	10.5%
Total	1785	1754	3539	100%

The primary purpose of this baseline survey, was to provide information on key indicators that could be used to guide the design of the intervention strategies with maximum impact on the targeted populations. The baseline would make it possible for OneSight to measure its contribution over the years in terms of outreach, capacity building and sensitization among others to its target groups.

The survey covered all the regions in the country with the distribution of respondents by regional background in the seven Local Government Administrative Areas (LGA) of The Gambia as shown in table 2 below. The number of respondents in Banjul accounted for 6.5%, while Kanifing LGA constitutes 31.9%, West Coast Region 31.1%, North Bank Region

10.6%, Lower River Region 2.3%, Central River Region 6.9% and Upper River Region 10.5% respectively.

Table 2: Distribution of Respondents by Region

Region	Count	Percent of Total
Banjul	233	6.6%
Kanifing	1135	31.9%
West Coast	1106	31.1%
North Bank	379	10.6%
Lower River	82	2.3%
Central River	247	6.9%
Upper River	375	10.5%
Total	3557	99.9%

The variation in the sampling plan of the study and the actual regional distribution of the interviews were as a result of the following:

1. In Banjul some of the respondents were not willing to respond due to their busy schedules and some other engagements.
2. In the some parts of the rural areas, some communities were inaccessible due to poor road conditions.

However, to address the above variances, substitutions were made to other communities with similar socio-cultural, economic and demographic characteristics.

4.1.2 Respondent's Demographic and Socioeconomic Information

Ethnicity:

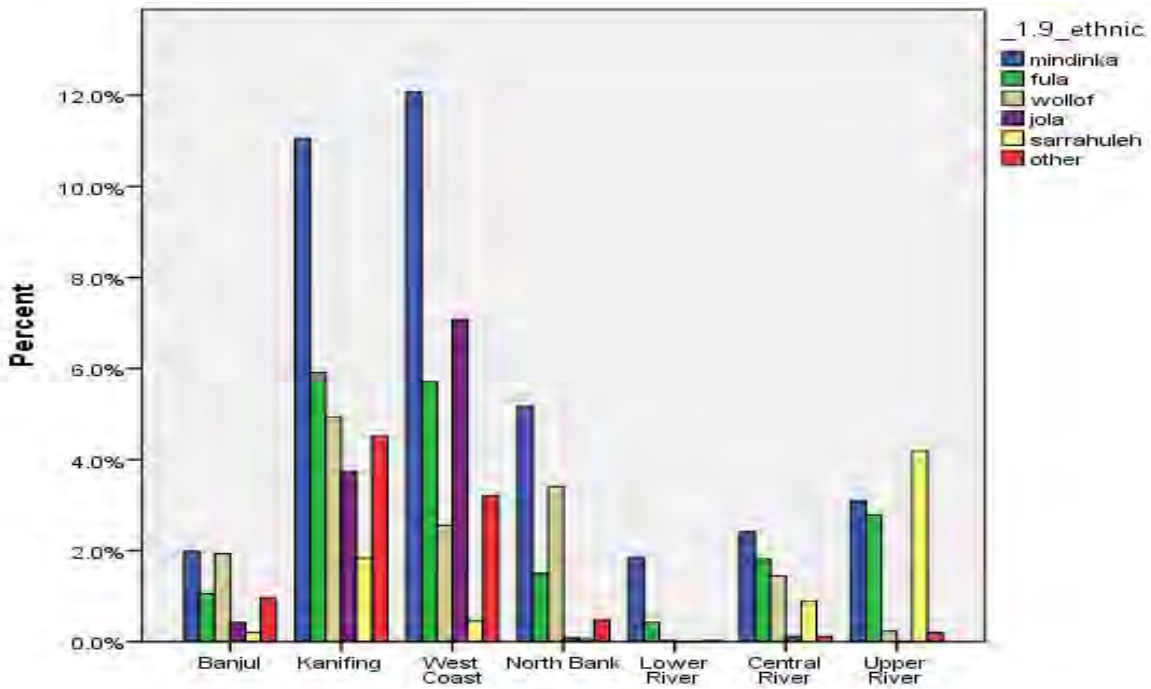
The ethnic composition of respondents is more or less similar as compared to the Gambia national census report. Table 3 below illustrates the distribution of respondents by ethnicity across the sample communities. It can be noted that Mandinka constitutes the highest percentage with 37.6%, followed by, Fula 19.2%, and Wollof 14.6% respectively. Jola, Sarrahuleh and Others accounted for the least number of respondents with 11.4%, 7.6% and 9.5% respectively.

Table 3: Distribution of Respondents by Ethnicity

Ethnic group	Count	Percent of Total
Mandinka	1325	37.6%
Fula	677	19.2%
Wollof	514	14.6%
Jola	403	11.4%
Sarrahuleh	269	7.6%
Others	335	9.5%
Total	3523	100%

The ethnic profile of the regions varies as indicated in Figure 1 below. This shows the ethnic distribution of the respondents by region. It could be observed that in Banjul Mandinka and Wollof form the majority about 2% each, whilst the other ethnic groups constituted below 1% each. It can be observed that the share of Mandinaka respondents constitutes the highest in the Kanifing and West Coast Regions, followed by the Fulas and Jolas respectively. The Upper River Region is the only region with majority of Sarrahuleh respondents. The above ethnic regional profile is reflective of The Gambia's present ethnic distribution.

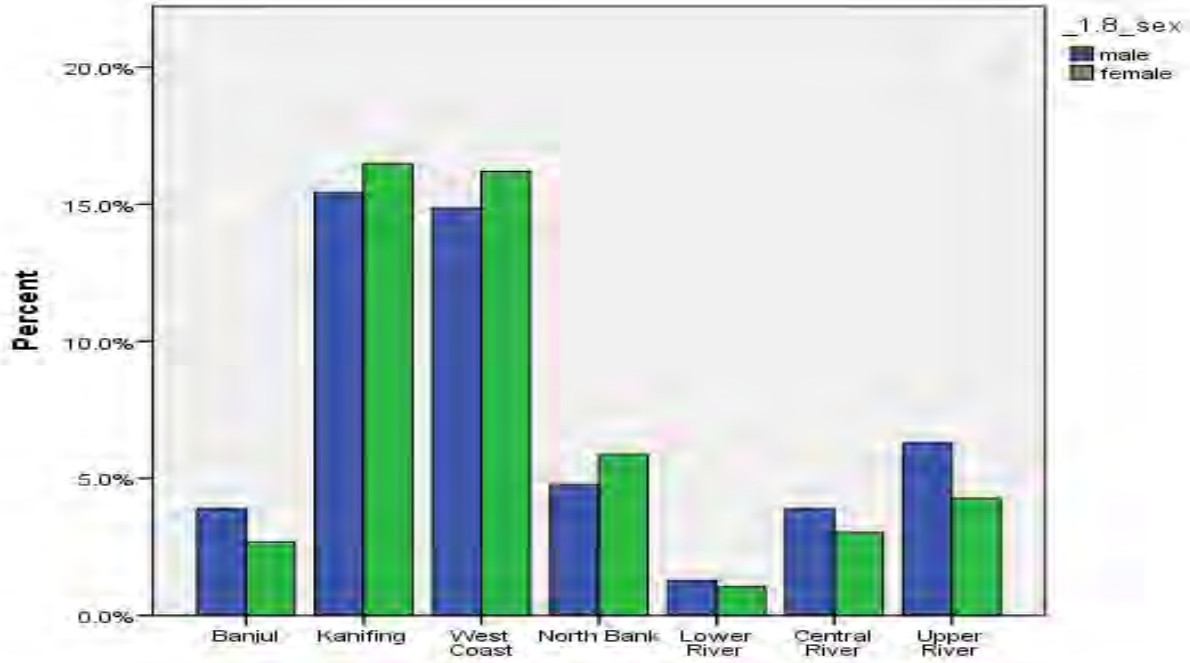
Figure 1: Ethnic Profile of Respondents by Region



Gender:

Overall, the gender distribution of respondents shows that 49.3% are males and 50.2% females respectively. This distribution shows that there were more male respondents in Banjul, LRR, CRR, and URR. Invariably, Kanifing, West Coast and North Bank Regions comprises more female respondents, which contributed to constituting 50.2% females in the overall total of respondents (see figure 2 below).

Figure 2: Gender Distribution Respondents by Region



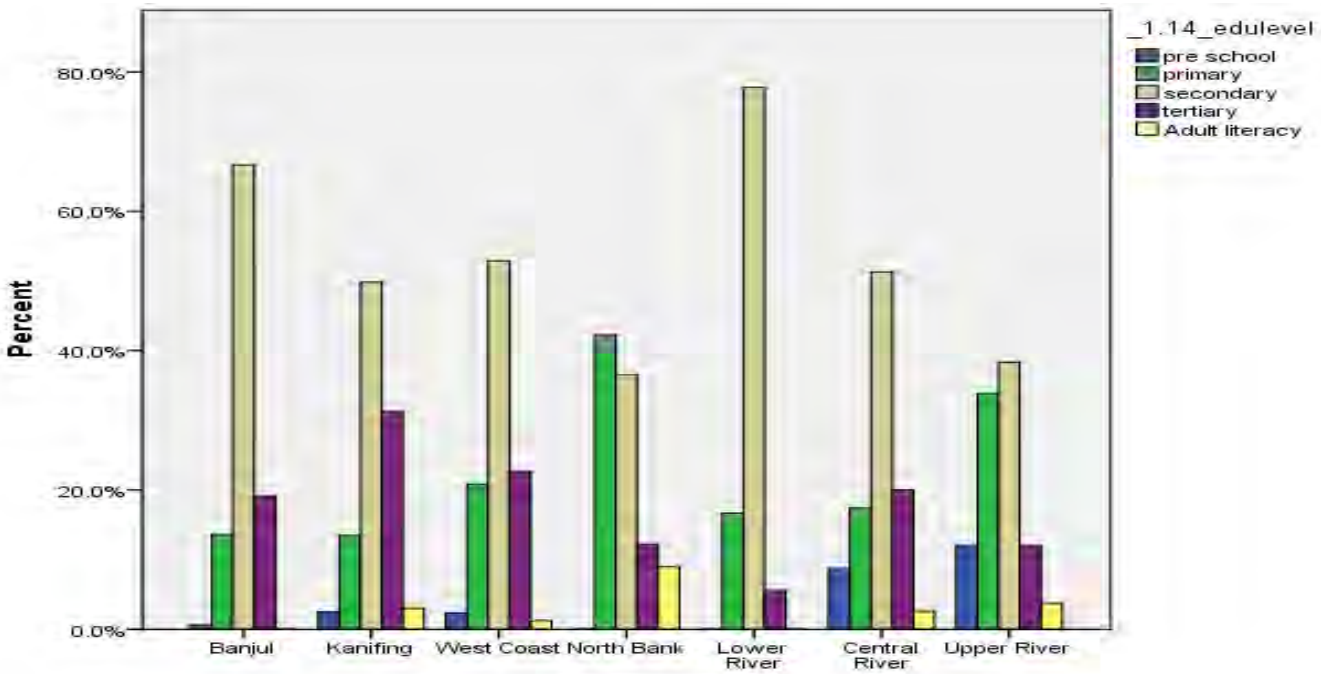
The gender representation of the survey is seemingly imbalance; this perhaps might be due to the patriarchal nature of the Gambian society with fewer female headed households as compared to male. Male headed households accounted for 70% as compared to female headed households with 27% of respondents revealed by the study.

The average household size in the sample is 5 members often constituting cohabited sibling and in many cases parents of the husband. About half of the respondents are either unemployed or providing services that are unpaid. Another 40 percent are self-employed. The main source of income is from the sale of livestock, fish and crops.

Education:

From figure 3, most of the respondents across all regions attained secondary education. While the lowest number of respondents either stop at pre-school and adult literacy. As expected the respondents that have attained tertiary education are mostly found in Banjul, Kanifing and West Coast Region. Interestingly Central River Region have a high proportion of respondents that attained tertiary education.

Figure 3: Level of Education Attained by Region



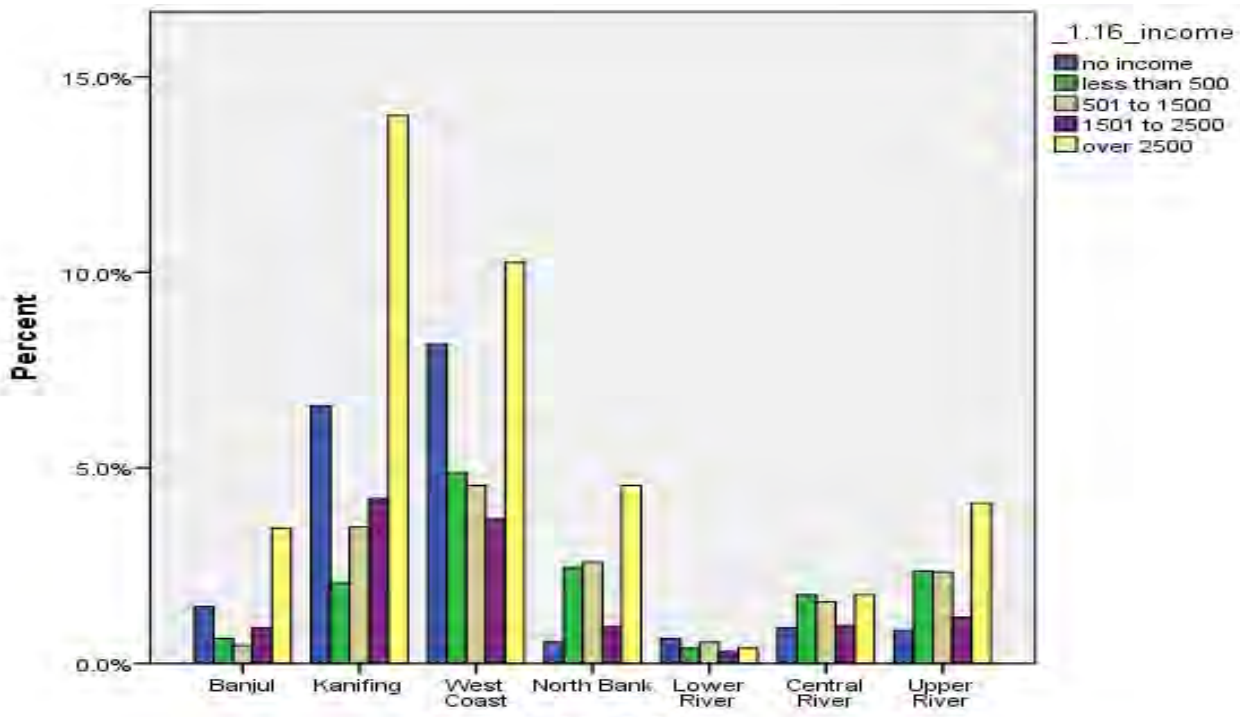
The average year of education for the non-respondent (family members) of interviewed families ranges between 6 and 11 years. The level of educational attainment is however lower for the other members of the household compared to the respondents. For other members of the family, the modal level of education is the primary school level compared to secondary level for respondents. This difference can however be due to the low level of schooling among children who have just joined school.

Income:

Incomes of respondents vary across regions. Majority of our respondents in Banjul, Kanifing Municipality, West Coast Region, North Bank Region and Upper River Region have a monthly income of over GMD2,500 (approximately US$59). Lower River Region is the

region with lesser proportion of people who fall within this income bracket. Some of our respondents have no monthly income which also represented a good portion of our respondents.

Figure 4: Income Brackets of Respondents by Region



The analysis of the association between the socioeconomic characteristics of the household and those of the respondent, the data shows that the household characteristics are highly aligned with the characteristics of respondents. This confirms that respondents were not economically different from the households that they represent. The average household daily consumption is about 230GMD (approximately $5). The average household size, translates into less than $1 per day per person.

Household access to basic social amenities is important for both their economic and social wellbeing. Access to clean water, electricity and other vital utilities does also have a direct bearing on health outcomes. For example, some studies have documented that excessive exposure to poor quality light can harm ones vision. Rural areas with no access to electricity may be exposed the poor quality light for long hours daily, forcing many residents to continuously strain their eyes. This can have an effect on the eyesight. Though we are not able to tell the number of years people have lived in rural areas without electricity, we are

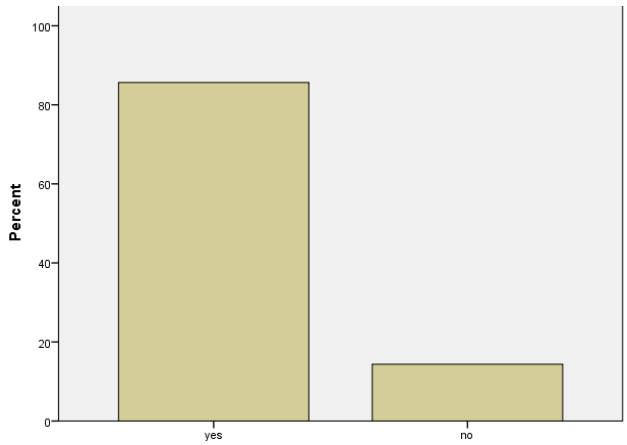
able to generalize the association between not having electricity and the number of visually impaired patients in the household. 92 percent of household in Urban Areas reported having access to electricity. In the rural areas, only about 505 or respondents indicated that they have access to electricity. Comparing between households with and without electricity, those without are about 5 percentage points more likely to have a member who has stopped working due to poor eye sight compared to those with access to electricity.

The most widely held asset among households is livestock. Nearly half of the households indicated that they have some form of livestock. However, the number of livestock is often considerably low when considered in the context of the household size. The mean number of livestock owned by households is below 2. This means, apart from the low consumption expenditure per day, the per capita savings in the form of livestock is generally low for most households.

4.1.3 Awareness

The study assessed the awareness of the respondents regarding their knowledge of OneSight, and the sight defects that can be enhanced by wearing corrective glasses, existing vision centers and other vision sight services providers in the country and the proximity within the locality of the respondents. As disclosed by the findings of the study, significant proportion of the respondents (84%) indicated that some people do have imperfect eye sight. Most of the respondents noted that their source of knowledge came through normal social networking and government eye clinics. (See figure 5 below).

Figure 5: Awareness of Imperfect Eyesight



Most of the respondents are aware that the some people suffer from imperfect eye sight. 2,997 (84.2%) of the respondents know that some people have imperfect eye sight whiles 502 (14.1%) said they don't know.

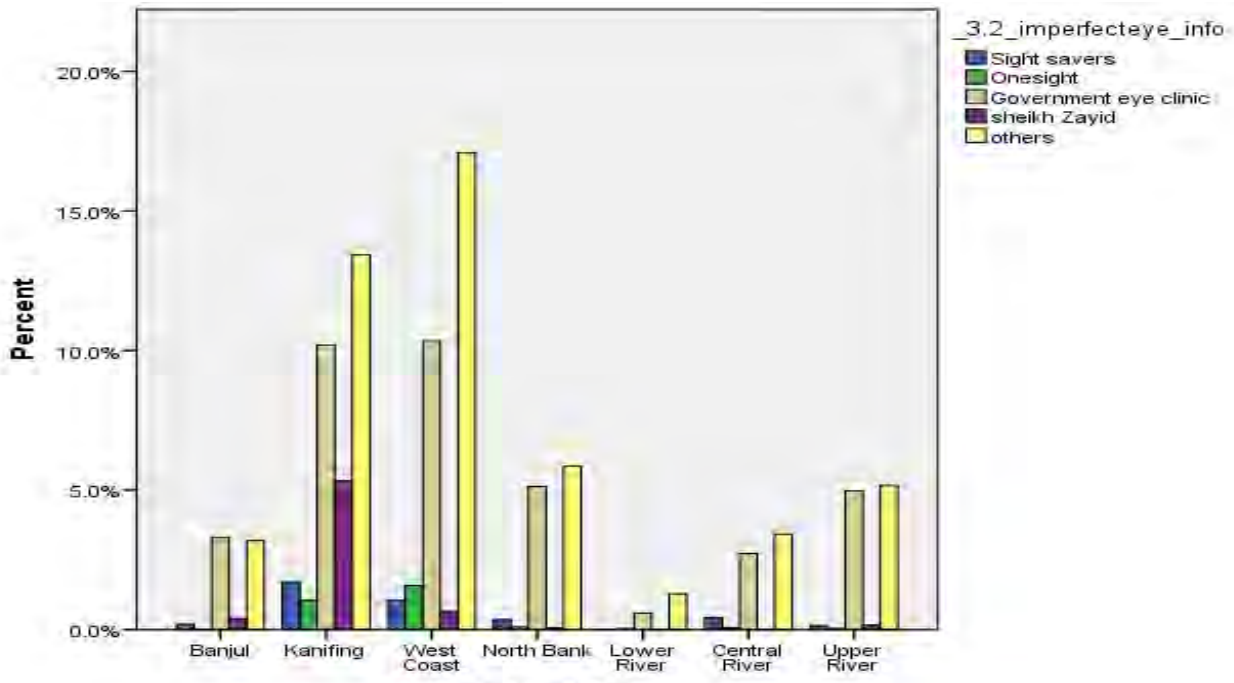
Information about imperfect eyesight was sought from Sight Savers, OneSight, Government Eye Clinics, Sheikh Zayed and others. Given that over 84% of the respondents are aware of imperfect eyesight, we decided to investigate their source of information about imperfect eyesight; from figure 6 below we observe that most of the respondents (37.3%) acquire information from Government eye clinics. The respondents who obtained information from Sight Servers and Sheikh Zayed represented 3.9% and 6.6% respectively. ***Only 2.8% revealed that their source of information about imperfect eyesight is from OneSight***. The majority of respondents said their information source on imperfect eye sight was from other sources such as local clinic, pharmacy, traditional communicators, social networks etc.

Table 4: Source of Information about Imperfect Eyesight

Eye care Service Providers	Count	Percent of Total
Sight Savers	118	3.9%
OneSight	87	2.8%
Government Eye Clinic	1134	37.3%
Sheikh Zayed	201	6.6%
Others	1503	49.4%
Total	3043	100%

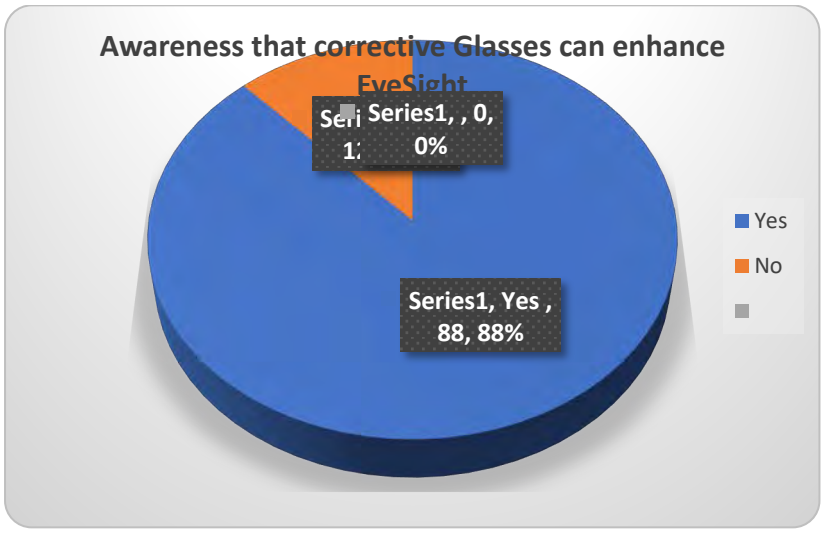
The source of information about imperfect eyesight varies by region. This is shown in figure 6 below. It is observed that across all regions the source of information about imperfect eyesight was mostly through other sources (such as local clinic, pharmacy, traditional communicators, social networks etc.) and government eye clinic. The source of information about imperfect eyesight through OneSight is almost non-existence in Banjul, North Bank, Lower River, Central River and Upper River Regions. While in Kanifing and West Coast Regions less than 3% said they were aware of imperfect eyesight through OneSight.

Figure 6: Source of Information about Imperfect Eyesight by Region



On the question of whether respondents are aware that eye glasses can enhance eyesight, 86.4% of them are aware that wearing glasses can enhance eyesight and the rest said they have no knowledge. Given the findings, it can be inferred that majority of respondents have some knowledge about imperfect eyesight and know that glasses aids vision. When asked whether respondents or members of households ever heard about service providers that help remedy eye-related problems, significant proportion more than 80% answered in the affirmative, while 12% said they have no knowledge. (See figure 7 below).

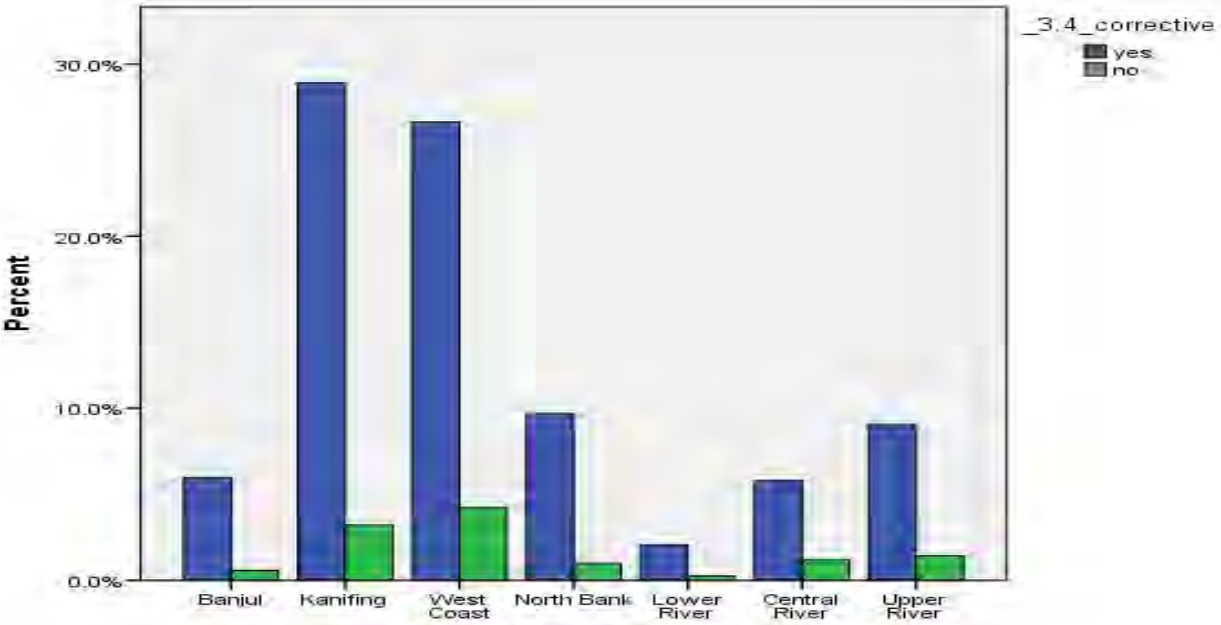
Figure 7: Awareness that Glasses can Enhance Eyesight



The level of awareness by region indicated that Kanifing and West Coast Regions scored the highest (29% and 27%) respectively, on the issue of whether or not eye glasses can enhance eyesight. This is obvious because there is high literacy rate with most of the economic activities being undertaken in these regions as the economic hub of the country (See figure 8 below).

Figure 8: Awareness that Glasses can Enhance Eyesight by Region

The awareness on the existence of OneSight was one of the variables assessed in the study.



About ***16.4% of the respondents ascertained that they are aware of OneSight*** as an eye care service provider in The Gambia. This shows that 83.6% of the respondents have no idea of the existence of OneSight. This is not a surprise since OneSight work in collaboration with Vision Centers in various government healthcare facilities across The Gambia to develop capacities and strength their infrastructure. Hence many people are aware of refractive error through the Government clinics and other facilities as alluded to in the foregoing. The results are shown in table 5.

Table 5: Awareness about the Existence of OneSight

Awareness	Count	Percent
Yes	564	16.4%
No	2868	83.6%

Total	3432	100%

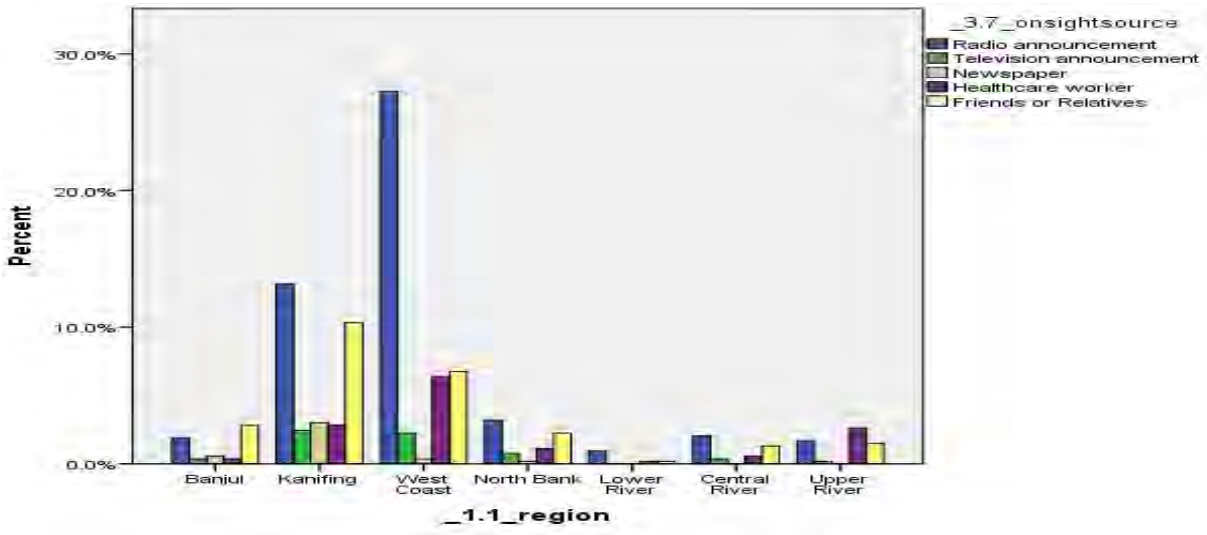
Of the 16% who responded that they are aware of the existence of OneSight, more than 50% got their source of information through radio. Only 4.1% receive information from Newspapers, which is an urban phenomenon by educated respondents. About 6.4% by television for those respondents who have access to Television network, while 14.1% from Healthcare workers (Nurses, Dispensers, Doctors etc.…), and 25.2% reported that they knew about OneSight through relatives and friends.

Table 6: Sources of Information about the Existence of OneSight

Source	Count	Percent of Total
Radio Announcement	267	50.2%
Television Announcement	34	6.4%
Newspaper	22	4.1%
Healthcare Worker	75	14.1%
Friends or Relatives	134	25.2%
Total	532	100%

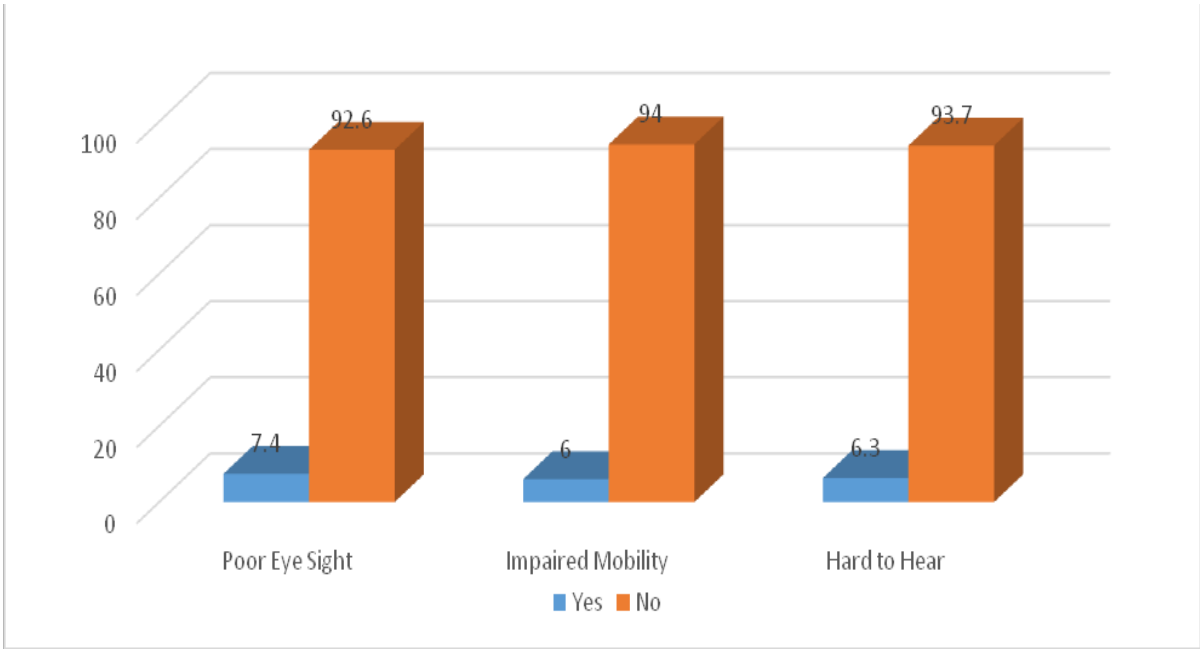
The figure below analyzed the source of information about OneSight by region. By and large there are significant variations among the regions regarding the source of information. It can be noted in the analysis; radio is the main source of information for Kanifing and West Coast Regions. Similarly, radio stood out to be the principal source of information for other regions except Banjul and URR using friends and/or relatives and healthcare workers in addition to word of mouth respectively.

Figure 9: Sources of Information about the Existence of OneSight by Region



This scorecard study analyzed the members of households who stopped working owing to physical impairment such as: poor eye sight, impaired mobility and hard to hear. Is has been disclosed that 7.4% of the members quit their jobs as a result of poor eye sight, 6.0% stopped working due to impaired mobility, whilst 6.3% complained of hard to hear. Generally, as observed in the findings physical impairment is not seemingly a problem. However, there is no need for complacency as health is a critical factor of development.

Figure 10: Household Members that Stop Working



The community scorecard survey assessed the health seeking behavior of the households across all the sample communities. The findings disclosed that more than 90% of the respondents utilized the services of health facilities for their imperfect eyesight. Only 2.8% recourse to traditional healers to remedy their eyesight problems. Home treatment accounted for 1.8% and others with 0.8%. High response rate for people's knowledge about the value and importance of conventional medication as opposed to traditional and local treatment has increased significantly. This perhaps could be as a result of health sector sensitization programs conducted in the country and interaction with the health sector services providers.

Table 7: Health Seeking Behavior

Health Seeking Behavior	Count	Percent of Total

Health facility	3323	94.6%
Traditional eye care	97	2.8%
Home treatment	65	1.8%
Others	28	0.8%
Total	3513	100

Table 8 analyzed the status of myopia and hyperopia on the possible solutions; more than 90% reported that they are aware of refractive errors and their possible solutions. About 7.8% had low level of awareness of refractive errors and its possible solutions. This clearly manifests that there exist high level of awareness of eyesight problems and the possible solutions. Notwithstanding, majority of the respondents confirmed that they cannot relate their refractive errors to causes. This in short implies that they are generally not aware of their eye problems.

Table 8: Awareness of Refractive Errors

Awareness	Count	Percent of Total
Yes	3208	92.2%
No	272	7.8%
Total	3480	100%

When the issue of willingness of respondents to recommend a child with eye related problems to wear corrective glasses in order to enhance the child's vision was asked, more than 60% responded that they will recommend their child to wear corrective glasses, while 31.6% responded otherwise. Hence, this assertion shows that most people allow their children or ward to use corrective glasses to enhance their vision as indicated in Table 11 below.

Table 9: Recommend a Child to Wear Corrective Glasses

Recommend	Count	Percent of Total
Yes	2392	68.4%
No	1103	31.6%
Total	3495	100%

The test of association between gender and awareness of imperfect eyesight showed a positive correlation between gender and imperfect eyesight. There is a no statistical significant relationship between the two variables at 0.05 levels (2-tailed) as generated by a Pearson chi square statistic of 0.883 and a p value of 0.347. The relationship between region and awareness of refractive error is statistically significant with a Pearson chi square statistic of 58.146, and p = 0.00 (<0.005).

4.1.4 Accessibility

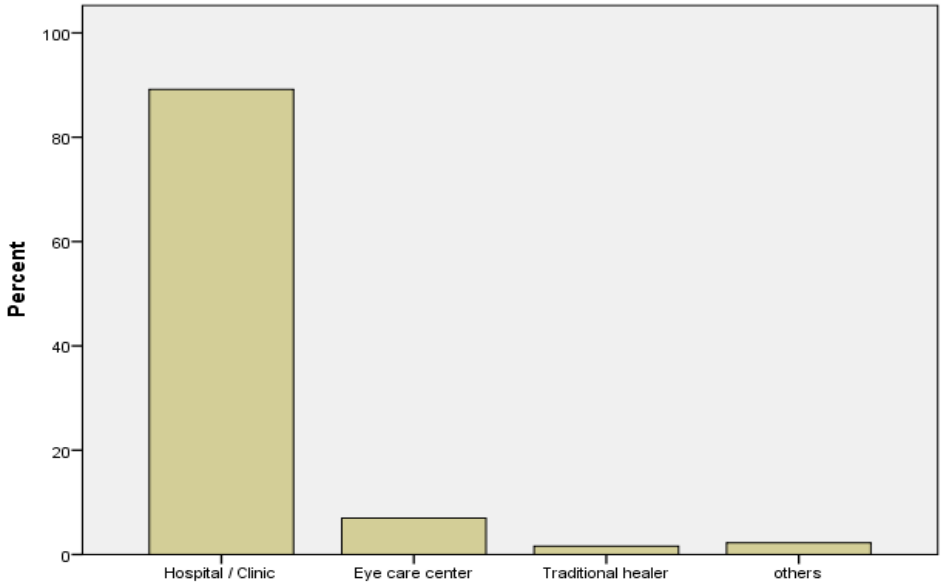
The issue of accessibility evaluated the utilization of eye care services in terms of distance, time and the cost of round-trip to the nearest eye care services including waiting time at the nearest eye care service centers.

There are few specialized vision centers in the Gambia. Most people access eye related services at hospitals or local medical dispensaries and private practitioners. In most of the rural areas, specialized eye care service providers are largely inadequate.

The findings disclosed that in the Gambia, majority of eye care services are located in the urban areas. This leaves the rural dwellers travel far and near in order to access the eye care services. Poor road conditions, inadequate eye care facilities and personnel made access very difficult with its associated requirements in the rural areas. This has instigated many rural communities recourse to alternative sources of care including traditional healers and patent medicine sellers, who serve as frontline health workers, (Fafowora, 1996). Hence patients buy eye drops without adequate and proper medical advice ending up compounding their eye diseases.

From Figure 11 below, indicated that more than 80% of the respondents reported that the nearest eye care services are accessed in hospitals and clinics. This shows access to health facilities is urban related. Hence, the majority of our respondents are within the urban area which is confirmed by the findings of the study. However, only 6.9% said they have access to eye care centers, while 1.6% accessed traditional healers. Notwithstanding, 2.2% of the respondents said they don't know which facility is nearest to them.

Figure 11: Respondent's Nearest Eye Care Service Provider



As revealed by the findings of this study indicated in Table 9 below, it can be observed that majority of household members about 80% have access to formal eye care services, only 19.8% indicated they do not have access to formal eye care centers. In spite of this, eye services in the Gambia leaves much room to be desired, hence need for improvement.

Table 10: Household Access to Formal Eye Care Center

Access to Formal Eye Care Center	Count	Percent of Total
Yes	2822	80.2%
No	695	19.8%
Total	3517	100%

Table 11: Nearest Health Facility Located in the Same Village as Respondent's Household

Health Facility in Same Village	Count	Percent
Yes	1564	44.7%
No	1935	55.3%
Total	3499	100%

When the question of the location of the nearest eye care facility was asked with respect to the proximity in the same village with the households it was fascinating to note that 44.7%

said it is within their village. On the contrary more than 50% said the nearest eye care facility is outside of their locality. This corroborated that access to eye care is a concern to respondents as confirmed by the study.

When the issue of access was assessed in terms of mode of transportation to the nearest health centers, majority of respondents used car as means of access. The time to the nearest health centers varies between rural and urban and within the same locality. The time it take to reach health facilities is considerably high. The average time it takes to reach an eye care center is about an hour. While it takes just about 30 minutes in urban areas, it takes more than an hour for rural residents. Finally, in terms of costs, on average, when one travels by car, it costs about 40GMD, a little less than a dollar. In terms of purchasing power, this is approximately the per capita consumption of an average person in the sample.

The test of association between gender and access to a formal eye care center showed no statistical significant relationship between the two variables at 0.05 levels (2-tailed). The Pearson chi square was 2.024 and p value of 0.155. Also a test of association between region and access showed a statistically significant relationship between the two variables with a Pearson chi square was 134.506 and p value of 0.000.

4.1.5 Affordability

Given the general level of poverty (48.4%), coupled with the high cost of health care services in The Gambia, this has resulted in making health care services exorbitant for good number of Gambians and residence alike. The cost of eye health care can be divided into direct cost e.g. consultation fees, cost of medication/glasses etc. and indirect cost e.g. cost of transportation to and from eye clinic, cost of food/sustenance, during eye treatment etc. This study assessed the level of affordability of eye health care services and product of OneSight to the people across the country, with a view to drawing inferences on what is perceived as affordable eye health care services.

Affordability of healthcare services including eye care service is influenced by income of the consumers (eye patient), the cost of the eye care services and other socio-demographic factors which may vary from developing to developed nations. As highlighted by Naidoo et al., "***that***

if eye care service is free, there still exist some hidden cost associated to eye care treatment making the cost of treatment unaffordable to poor. Their paper further noted that poverty is a major issue affecting affordability eye care health services, hence patients from poor economic background are not able to afford the cost of eye care services and therefore conditions which could have been treated at an early stage are not attended to and may result in low vision and blindness, thus making the costs of treatment exorbitant and beyond reach of the poor and marginalized of society".

This study assessed the level of affordability of eye health services and product of OneSight to the people across the country as stipulated in the objective, with a view to making inference on what is perceived as affordable eye health care services. The cost of transport to and from the service centers as revealed by this study is relatively high as it includes some hidden cost, e.g. the indirect logistical cost and opportunity costs. Often in many households, the head of the household is the breadwinner and the main source of economic resources. In view of this, he or she is often in charge of healthcare expenses of members of the household. The above findings have been corroborated by literature that, distance is a barrier which could also be reduced by setting up outreach programs in rural areas and providing transport from villages directly to the health service centers and back (Ebeigbe & Ovenseri-Ogbomo, 2014). They highlighted that affordable eye care services depends both on the price of a health intervention and on the financial means of the person or organization paying for it. They further went on to explain that the cost of the intervention or service, and therefore its price, should be kept as low as possible through efficient business practices, e.g. high productivity and no wastage by only using what is essential for quality services delivery. The cost of eye health care can be divided into direct cost e.g. consultation fee, cost of medication/glasses. While the indirect cost refers to cost of transportation, cost of food/sustenance during eye treatment as indicated in this community scorecard study.

An analysis of willingness to buy a pair of glasses was made, the findings disclosed that nearly 70% of households reported that the respondents (Head of household) will be the one to pay for corrective glasses should the need arise for any member of the household. Only 6% of respondents indicated that the person affected would be responsible for the payment. Others constituted a significant proportion of responses to this question about 27%. Others here refer to any member of the household, clan, community, and religious leaders would be willing to pay as a result of the social networking and communal system practiced in the rural

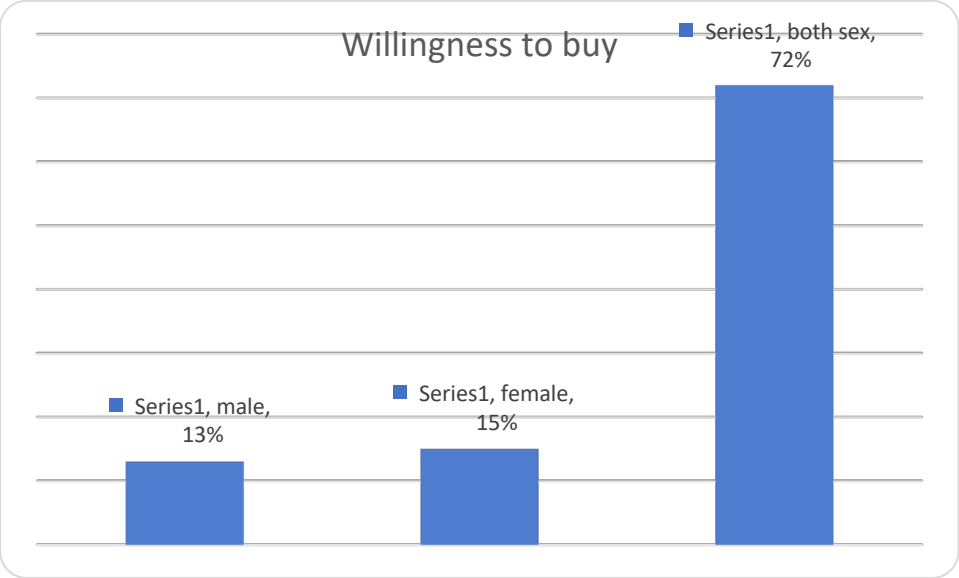
Gambia. Often times when individuals and families have social and health related problems; they do go to the mosque to seek support from the community.

Considering the importance of health; in particular eye related problems the findings shows that 72% of households prefer to buy for both sex. Hence, households' gender differentials are very low. As indicated in both Table 11 and Figure 14 below.

Table 12: Willingness to Buy Corrective Glasses

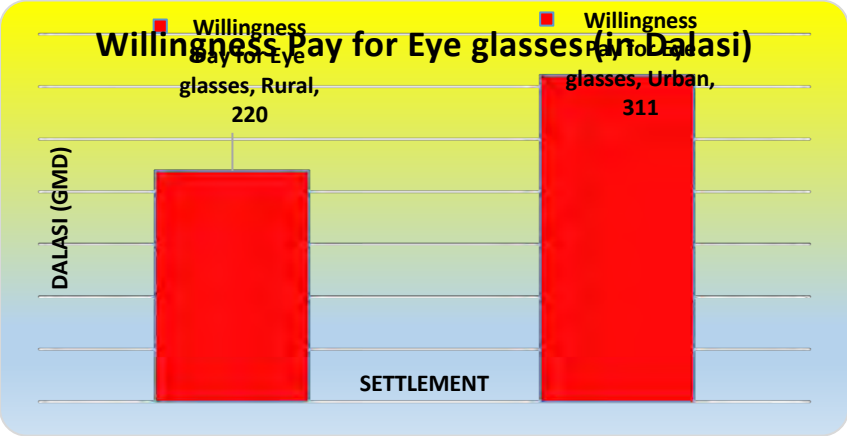
Willingness to Buy Corrective Glasses	Count	Percent
Respondent	2318	67.0%
Person him/her self	210	6.1%
Others	932	26.9%
Total	3460	100%

Figure 12: Willingness to Buy Glasses by Gender.



Analysis of willingness to pay for eye glasses revealed that in the country, respondents are willing to pay ranging from GMD 0 (free eye glasses) to GMD20, 000 for a pair of eye glasses. This reflects the rural-urban variances in terms of their socioeconomic. However, the national average willingness to pay by respondents is GMD 261.47 ($6). The rural average is GMD 220 and the urban average is GMD 311 respectively. This corroborates the fact that poverty in the Gambia has a rural-urban dimension. Urban dwellers are willing to pay more than the rural dwellers because of their level of education and awareness of health related issues. While as in the rural areas majority of the people's level of awareness of health related issues is relatively low.

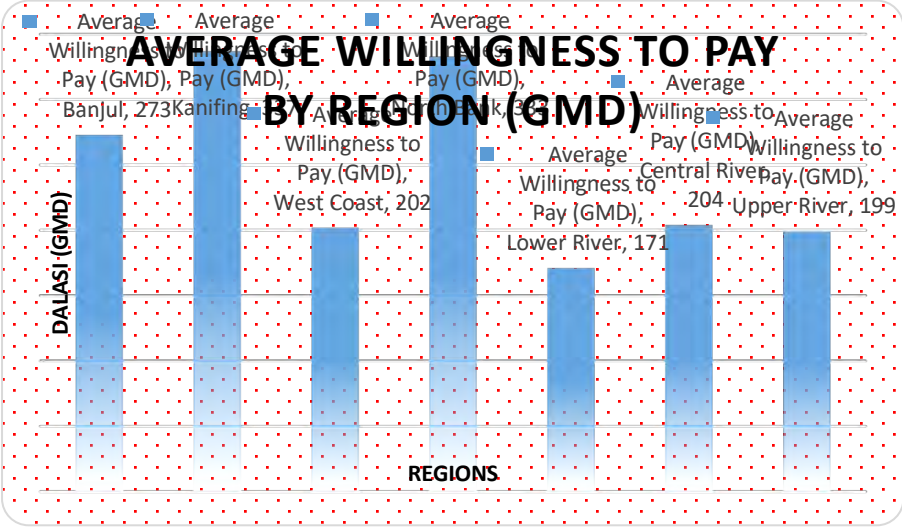
Figure 13: Willingness to Pay by Settlement



The analysis of the average willingness to pay by respondents varies by region within the rural and urban settlements. As recorded by the findings the average costs that the respondents are willing to pay for eye glasses accounted for GMD 273 in Banjul, GMD 337 in Kanifing and GMD 202 in West Coast region. It can be observed in the analysis that Kanifing accounted for the highest GMD 337. This could be associated to the fact that Kanifing is the economic hub of the country where most of the economic activities are taken place.

On the contrary, the rural average willingness to pay for eye glasses constituted GMD 333 in the North Bank Region, GMD 171 in Lower River Region, GMD 204 in Central River Region and GMD 199 in Upper River Region. This is consistent with the poverty studies conducted in this country, that the further you move away from Greater Banjul Area poverty increases as it is reflected in the findings. Thus, it is evident that the respondents from the poorest region in the country, LRR are willing to pay the lowest amount for eye glasses.

Figure 14: Willingness to Pay by Region



The analysis on the issue of affordability, disclosed that more than 80% of the respondents reported in affirmative that there are costs required in making eye sight better. However, 18.6% reported otherwise (5.8% no, 12.8% don't know). The respondents who confirmed their knowledge about the costs required, also raised concern regarding the hidden costs. They lamented eye health care services have both direct and indirect costs as a burden on their service utilization, e.g. cost of medication, food and cost of transportation. These two costs make health care expensive and unaffordable to the poor and vulnerable members of our societies.

Table 13: Cost required in Making Sight Better

Cost of Treatment	Count	Percent
Yes	2842	81.34 %
No	204	5.84%
Don't know	448	12.82 %
Total	3494	100%

As is discernible in the **Figure below 15**, the same trend follows in all the regions that respondent knows about the cost required in making eye sight better. Only very few respondents (17.8%) said they have no idea whether a cost is required in making sight better.

Figure 15: Cost Required in Making Eye Sight Better by Region

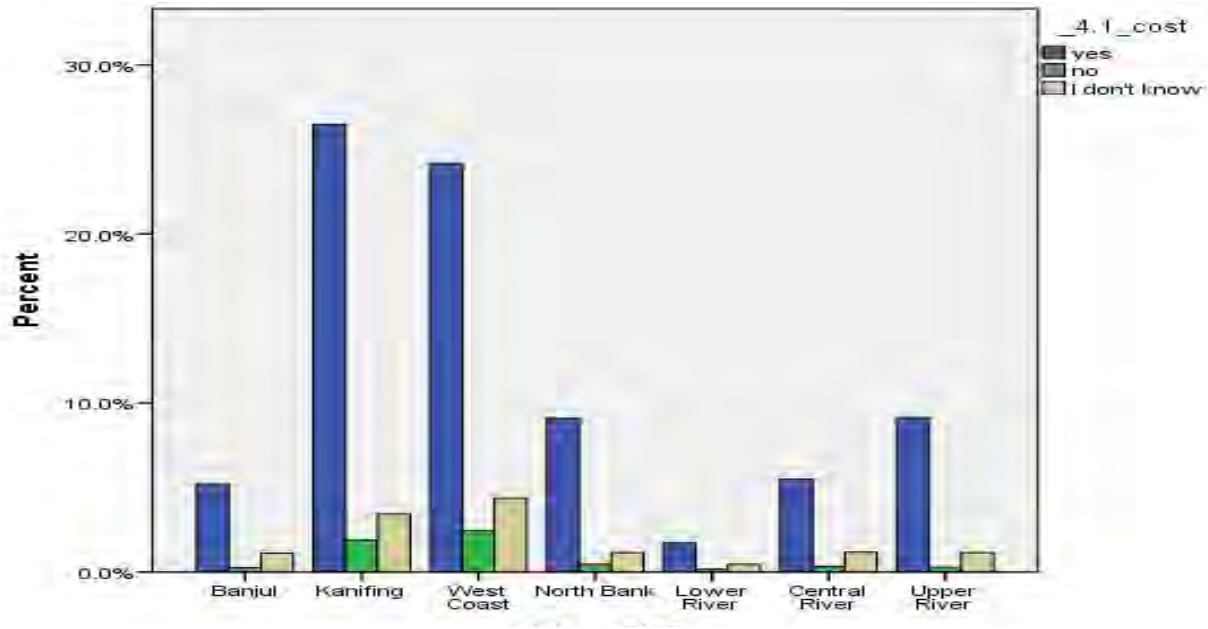
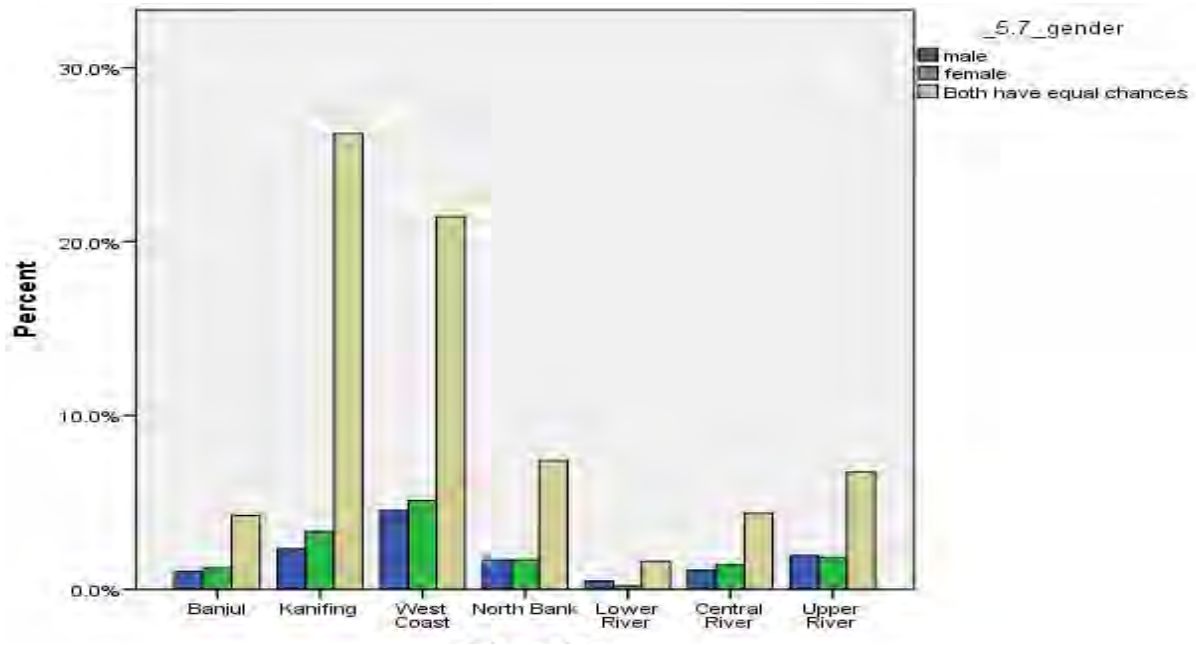


Figure 16 below shows respondent's in household willingness to purchase corrective glasses for either male, female or giving equal chance to both gender by region most of our respondents said there are indifferent i.e. they will give equal chance to both male and female family members is respond is most pronounced in Kanifing Municipality and West Coast Region.

Figure 16: Willingness to Purchase Corrective Glasses by Gender & Region



Tests of relationship between gender and affordability (whether household will buy corrective glasses for male, female or both) showed statistically no significant relationship between the two variables at 0.05 levels (2-tailed) as generated, Pearson chi square was 2.514 and p value of 0.285. The relationship between Region and Affordability (whether household will buy corrective glasses for male, female or both) is statistically significant with a Pearson chi square value of 100.807 and p value of 0.000.

4.1.6 Focus Group Discussions

Analysis of the qualitative dimension (FGDs) of this scorecard survey was conducted to complement and triangulate with the quantitative information in order to have a better understanding of the prevalence of refractive errors and its associated causes as well as solutions sought and other eye related diseases in the country. Focus Group Discussions always disclose the hidden information that cannot be disclosed by quantitative approach, such as; the social dimension of the problems, how it affects the research subjects, the extent to which they are affected and the coping strategies used until lasting solutions are found to the problems.

The qualitative study of the scorecard (Focus Group Discussions) focuses on the following thematic areas: Awareness, Access, and Affordability. These are variables that are considered measurable using both quantitative and qualitative approaches to data collection to facilitate triangulation and comparisons. Focus Group Discussions' Guide was prepared to conduct the

discussions with the communities comprising cross sections of the population with gender balance. See Appendix 3 & 7 for FGD Guide.

The research team agreed to conduct one FGD in each district within one of the sample villages in the districts to have 30 FGDs for the whole country. This was considered enough given the homogeneity of the characteristics in the districts with regards to the variables under consideration for discussions. But this was not met due to the fact that Wuli West on the North Bank of Upper River Region was inaccessible owing to the fact that the main trunk road used by vehicles was washed away by flood during the rains and was not repaired at the time of the survey.

A total of 28 focus group discussions were held in 28 districts out of 30 sampled districts with a population of 320 participants. Of this 56 percent were males and 44 percent females respectively. The desire was to have equal representation of gender including youths. As dictated by the reality found on the ground and timing of the research, women were found busy working on the farms or engaged in some meaningful economic activities hence attainment of the desired was not feasible. This was significantly affected in Janjangbureh focus group discussions, where there were no female representation and Kafuta with more than 70 percent male representation were the cause of imbalance. See Appendix 7.

4.2 Qualitative Findings

The qualitative aspect of the study entailed Focus Group Discussions (FDGs) in 28 districts in the Gambia. The analysis of the FGDs is discussed below. The analysis focused on accessibility, awareness and affordability.

Picture 1: FGD at Pallen Wollof, CRR 8th October, 2016

Picture 2: FGD at, CRR 9th October, 2016

Picture 3: FGD at URR, October 9

4.2.1 Awareness

The issue of awareness was discussed using three pronged approach. The first point of discussions enumerated participants' level of awareness about OneSight and its operations in the The Gambia. More than 90 per cent of the participants across the FGDs conducted, said they were not aware of OneSight, some even said ***"We have never heard of OneSight, we are hearing it for the first time"*** **– Pallen Wollof**, while others said, ***"We heard their name through radio but never had the opportunity to physically interact with them"*** – **Diabugu Batapa,** and other participants said, ***"We are aware of Sight Savers but not OneSight"*** – **Taibatu Wuli East**.

Similar sentiments regarding people's limited or no knowledge about OneSight has been raised by the majority of the focus group discussions particularly in the North Bank Regions of the River Gambia. Even in Farafenni where OneSight is working in partnership with the government eye clinic, when FGD was conducted, this is what one of the participants has to say; ***"We are not aware of OneSight and myself I have an eye infection"*** - **Farafenni.** Invariably, the focus group discussions conducted in Yalal Tankong Jala, the group said; ***"We had once received some visitors here from Farafenni, with some white guys among them but we don't know who could they be? We have never had any interaction with OneSight"***.

On the South Bank of The River Gambia; East of Greater Banjul Area, the following communities recur similar opinions of no knowledge about OneSight and as quoted in the box below:

"We have no idea about OneSight but we are well aware of eye infection. We have people here with eye issues such as blindness, watery eyes, short/long sightedness and eye pain and itching" – (Gambisara).

"I heard some say OneSight is in Basse, but I don't know how true the statement is? OneSight existed in Basse for 2 to 3 years and they treat all types of eye ailment. They are hosted at Basse health center", by one of the Participants – **(Gambisara)**.

"We are not aware of OneSight and eye illness is common now. I have eye infection which I have to travel to Kombo to get treated. I know people with cataracts. Most people with eye problems here either go to Basse or Kombo" - **Suduwol.**

"We only heard of OneSight through the radio news but never had any profitable interaction with them. We travel to either Soma or Farafenni for treatment, those health facilities are equipped to handle any eye infection. They test, diagnose and operate patients and also sell glasses. The price of glasss ranges from D250 –D500" - **Sankandi.**

"We are not aware of OneSight and we know that whoever has an eye infection must visit hospital. People here start with Bwiam and later proceed to Kanifing if Bwiam could not produce the results they expect. We are lucky to our own son who is working at Sulayman Junkung Hospital in Bwiam as an eye specialist. He is very helpful whenever one visited Bwiam" - **Sintet Tamba Kunda**.

"We are not aware of OneSight and any eye infected person goes to Bwiam, Sibanor or Brikama to receive attention. I know someone who was operated with cataracts in Bwiam, Apollo is a common eye illness especially this time of the year. Some also complain of blurred vision" - **Mayork**.

Surprisingly FGDs conducted in the three districts of Banjul disclosed no knowledge about OneSight and its operations. Here are the findings quoted during the discussions:

"No knowledge of OneSight and anyone with an eye infection goes to the hospital"- **Banjul South.**

I have heard of them through radio saying they are here to help with eye illness but not had the opportunity to physically interact with them. People with eye problem go to the hospital - **Banjul North.**

"We have never heard of OneSight and never heard of their existence in the Gambia. Anyone with eye issues go to hospital" - **Banjul Central.**

The same opinions were upheld from Tampoto to Kanifing Municipal Area districts, most of the FGDs confirmed limited or no knowledge about OneSight and its operations in the country. These are what they have said as indicated in the Quotes below:

"I have never heard of OneSight, not from either the radio or people. Anyone with eye issues visits Sibanor, Kasayne, Somita and even go up to Bwiam for treatment" - **Tampoto.**

"We know OneSight; we have two of our sons working with them. Musa Darboe is one and Dodou Colley is trained here to give people first attention before referring them to Brikama" - **Kafuta.**

"We are not aware of OneSight and had no prior interaction with them. We know that people with eye problem go to either Brikama or Kanifing as there is no health facility here" **- Tujereng.**

"Never heard of OneSight" **- Jambangjelly**

"I am aware of the existence of OneSight but had no interaction with them. I have seen the labels on vehicles. Whoever has an eye problem is referred to Brikama eye care unit as it is the focal point in the region" by one participant **- Jalanbang**

"I saw their name labeled on cars but had not positive interaction with them. All those I know with eye infection, goes to Brikama health center", by one participant - **Brikama Wellingara.**

"We knew them through radio but had not received them physically" - **Busumbala.**

According to FGDs findings, only two communities out of 28 said they had some knowledge about the existence of OneSight in the country. These include Janjanbureh in Fuladu West, who confirmed observing the presence of OneSight near Bansang and KMC as quoted by the community members below:

"*We are aware of their existence and they are resident in Bansang and works at the hospital. They once came here, sensitize people, tested, treated and gave glasses to some people. When they came here, '**Taka Titi'** (the town Crier, informant and announcer) was busily involved in helping to spread their news. People with eye problems here go to Bansang as the only major health facility around, examples of eye infections which includes; cataracts, red eye, watery and itchy eyes, and Apollo*"

"I am aware of OneSight, they once came to my ward in Bakau to sensitize the people. OneSight came to the council (KMC) requesting two people from each ward in order to train and use them as focal persons called Optical lead to be as an inferface between the NGO and the people. OneSight is collaborating with Sheikh Zaheed and they are hosted at Serrekunda hospital" **- KMC.**

These are those who are literate, majority of who resides in urban and/or growth centers such as; Janjanbureh and Kanifing Municipal Area said "they do see their sign boards and vehicles crisscrossing or passing bye with labels of OneSight in addition to radio announcement, television programmes and physical interaction with the patients.

People's limited or no knowledge about OneSight across the country perhaps could be due to various reasons crucial among which were; lack of OneSight's frequent and direct contact with the populace as an independent organization, limited or no outreach services, absence of infrastructure of their own and the fact that OneSight operates in partnership with government and other stakeholders – SightSavers and Sheikh Zayed through their infrastructures in the country.

In spite of the few cases of people's knowledge of the presence of OneSight, their services are felt across the country through their partners.

According to poverty studies conducted in the Gambia, shows that North Bank Regions of the River Gambia compare to the South Bank are less privilege in terms of access to development services, infrastructure and opportunities. Hence, has the highest incidence of poverty and therefore stood out to be the poorest region in the country.

Aided and Unaided Awareness

The second discourse focused on awareness of refractive errors by the participants. The issue of refractive error was further discussed into "awareness aided" and "awareness unaided" to gauge the level of participants' knowledge of refractive errors. Also to assess their source of knowledge about those having imperfect eye sight and possible solutions used to make eyesight better.

As revealed by the FGD findings, participants' levels of awareness on refractive errors were generally very low about 7.4% (2 out of 28 communities. Because the issue of refraction is a little bit technical and scientific, not all educated people do understand what it is all about, unless into medical profession or specialized in eye care. Notwithstanding, about 11% (3 out of 28 communities) confirmed their sources of information about imperfect eye sight unaided from either Sight Savers, Government Eye Clinics and Sheikh Zayed with no specific mention of OneSight.Aided awareness regarding refractive issues, were discussed through

asking questions whether they have difficulty to thread a needle, to see small objects that are closer or difficulty to read street signs at a distance. These were raised to determine whether participants are myopic/short-sighted or hyperopic/far-sighted. There were varying answers provided between those who are farsighted against those shortsighted. The findings disclosed that majority claimed to be shortsighted meaning when the objects are closer they have difficulty in identification.

Access to information in the Gambia varies depending on the region and location within the region in addition to the medium of communication. By and large the FGDs conducted across all the regions in the country, participants confirmed receiving their awareness information largely through radio, and health staff in the eastern part of the country, whilst in the west mostly through TV for those in the areas with reception. Also in the rural Gambia through traditional communicators which include community criers and/or announcers.

On the North Bank Regions of the River Gambia, most communities received their news as quoted below by the participants:

"We receive information from relating to health through radio and other people are a source for news" **- Taibatu.**

"We always receive awareness advice from public health personnel, one of whom lives with us in the village. Some important news is also related to us through the Alkalo. Radio can be an important medium for the dissemination of information but people here would prefer to listen to music than important announcements. Face to face information dissemination is the best medium and has a lasting effect" - **Ndungu Kebbeh.**

"We mostly receive information or important news through the radio. MRC use to come here from time to time to test and treat people most especially the children and the old. They also do advice and give important information" **- Doobo.**

"We get information through the radio and only a few have television but the majority is without television" **– Yalal Tankong Jala.**

Awareness of Solution

Similarly for communities in the South Bank, East of Greater Banjul does receive development and health related message mostly through as indicated in the quotes below:

"We receive most information through radio most especially from Radio Basse and Radio Gambia plus others" **- Gambisara.**

"We often receive information through Basse Community Radio that people will come to treat eyes and will give glasses. Glasses will cost ranging between D250 to D1300" - **Suduwol.**

"We receive important news through the radio. Whenever there is news about a specialist visit to major hospitals, people will rush to seize the opportunity" **- Sankandi**.

"We receive news or information through radio or chief" **- Mayork**.

"We receive news from radio, television, newspapers and internet. We also person news or important information through the word of mouth" **- Kafuta.**

"We always receive awareness advice from public health personnel, one of whom lives with us in the village. Some important news is also related to us through the Alkalo. Radio can be an important medium for the dissemination of information but people here would prefer to listen to music than important announcements. Face to face information dissemination is the best medium and has a lasting effect" - **Ndunggu Kebbeh**

For Greater Banjul Areas the most popular channel of receiving important development and health messages is through Radio, Television and Print media (News Papers). This has been reiterated by the FGDs as quoted below:

"*We access news through radio, television and/or newspapers"* **- Tujereng.**

"We receive information through the radio, television, newspapers and internet" **- Jambangjelly.**

"We receive news through radios, television and from the Alkalo, then it filters down to the clans (Kabilos) and to the people" **- Jalanbang.**

"We always receive information from radios, television, posters, bill boards and from the hospitals and health centers" **– Brikama Wellingara.**

"We receive news from radios or television and sometimes receive important information from medical personnel" **– Busumbala.**

"We often receive news through radio, television, newspapers, mobile and from person to person through the word of mouth. Workshops and seminars can be other platforms to sensitise and spread important information" **- KMC.**

For the three districts in Banjul, participants said; **"We receive news or information through the electronic and print media - Banjul South, "Radio, television and councilors are the main source of important news" – Banjul North,** whilst Banjul Central confirmed receiving important news/information through radio, television and newspapers in addition to the use of a PA system to get important information across to the public.

As disclosed by the FGDs, the most recommended channel disseminating information the general public in The Gambia, irrespective location is through radio that everyone listened to. The existence of the community radios across all regions has improved access to important news and needs further strengthening.

Awareness of Solutions to Refractive Errors

Awareness of solutions to refractive errors is the most critical component of this scorecard survey as it is the domain area of OneSight's intervention in The Gambia and other countries alike. Solutions sought to refractive errors correlates to the individuals and groups knowledge on refraction. There is high correlation between the level of awareness of individuals and groups on their health seeking behaviours, and in this case the refractive errors and the types of solution sought.

In most developing countries including The Gambia, the health seeking behaviours are constrained by low levels of awareness, insufficient health facilities, inadequate doctors, and other health staff, high doctor-patient ratio, poverty, and limited supply of drugs. These are compounded by centralization of development with limited outreach services that consequently inspire the rest of the population especially those in the rural areas resort to traditional methods of health solutions to their health problems.

The Focus Group Discussions conducted in the country across all regions confirms people's changing towards conventional health solutions against traditional methods with the limited knowledge acquired. However, much is desired to further improve on this trend.

When participants were asked about their awareness of solutions to refractive errors, numerous solutions to eye related infections were provided most of which hinges on traditional methods. The reasons given were; inadequate availability of services,

infrastructure and transport cost to nearest service centers, waiting time and other associated cost. These really constrained most of them and eventually influence their recourse to local methods they know, which is less expensive even though they have some scientific implications. The most disturbing issue is most of them cannot explain the causes of their eye infections, nor can they differentiate which ones are due to refraction because of limited or no knowledge at all on refractive errors.

The most common solutions used by the communities across the country for eye infections irrespective of whether refractive or otherwise are quoted as follows:

"People still use traditional treatment method, some use "DALA BENO", a small grain cereal put in the infected eye. An eye that pains and swells, some uses a hollowed horn, fill it with water, put fire inside and use the steam to heal the eye. "FARA JAMBA YELEBALO, PATEH KULEO, JAMBA KASALA, BAKO GIYO and DUMU KOSO" are common practice still active today. I have witnessed people undergoing such treatments and it works for them. Apollo is treated with salt water" - **Tujereng.**

"Without westernize treatment some people switch to localize treatment some of which include washing the face with still water early in the morning before engaging outsiders, others include the use of "JAMBA KASALAH, KEROSINE, BAMBU TULO" etc." – **Jambanjelly**

"Apollo" this is a local name for certain type of eye infection; some people use white soap to wash their eyes, while others "*Never die leaves*" or scientifically known as "*Morenga*". The leaves are crushed, soaked in water and used as an eye drop if not using conventional eye drop. ***Hear what one of the participants has to say:***

"Another common eye infection we are familiar with is called; "NYA FALINGO, NYA MEN YELEMATA, NYA DIBO" in Mandinka, scientifically known as Cataract. Our Alkalo has "Wulo FINKO", an eye that is wide open but cannot see. Without hospital treatment, we wash an infected eye with salt water, use some leaves as herbs to wash the eye, another ancient practice is the use of steel water to wash eyes early in the morning before engaging outsiders".

Those mentioned above are among the many solutions used in The Gambia based on their beliefs and found to be working for them. Gambia being a small and cohesive society, the variances are not much for the herbs mentioned in the quotes as they are available in all regions in the country and accessible without cost.

These findings revealed that 35.7% of the total of communities contacted for FGD in North Bank Regions of the River Gambia (CRR North and URR North); reported that due to low level of awareness, insufficient access to eye care services, inadequate health infrastructure, and limited outreach services just to name a few leading to more utilization of traditional methods of solutions despite their negative implications scientifically. Hence, much room is desire to improve on the health service delivery and its concomitants in particular in the North Bank Regions of the country. See FGD Matrix in the appendix.

4.2.2 Access

Access to refractive eye care services is generally determined by the availability of social and economic infrastructure, services and eye specialist world over. These opportunities for development in most developing countries are constrained by inadequate supply of services, communication network in particular - road and means of transportation and the cost of services among others. Most of the economic and social infrastructures are not evenly distributed, rather urban dominated which is inhibits access and hence emboldens rapid urbanization.

This scenario is evident in the Gambia and corroborated by the findings of many studies conducted in the country including this scorecard under review. According to the poverty studies conducted in the Gambia, confirms that the further you move away from Greater Banjul Area (GBA) the severity of poverty increases. This is because the social and economic infrastructures and services are more concentrated in GBA at the expense of other regions portraying centralization of development. The sampling procedure used for this scorecard survey further recognizes the trend of rural-urban drift and gives greater weight to the allocation of sampling unit to GBA, where more than 60 per cent of Gambian population resides. This situation has not changed much since Independence. The North Bank Regions of the River Gambia are more less privilege and therefore hard hit by poverty.

When the issue of access was discussed in the Focus Group Discussions across the regions, the findings shows variances (regional and within regions) with greater differences between urban, towns and growth centers against rural communities in the hinterland within the regions depending on the nearness to the service centers. Also the availability of good road

network, cost of transportation services and its regular availability and cost of services generally constrained accessibility.

Of the 28 FGDs conducted across the country, participants lamented the inadequacy of eye care services which they considered as one of the most important parts of human body. They mentioned that there are only few reliable centers for eye care and other health services to serve a population of 1.8 million in The Gambia is obviously inadequate. The major health facilities currently available in country are; Francis Small Teaching Hospital Banjul, Kanifing Hospital, Sulayman Junkung Hospital Bwiam, Jammeh Foundation for Peace Hospital, APRC Farafenni Hospital, Brikama and Bansang) for government and private facities are: Sight Savers, Sheik Sahed, MRC at Basse, Fajara, Farafenni and Kneba in addition to WEC Mission in Sibanor, Foni Jarrol and Masembeh. Most of these are located in the GBA. This leaves the country much room to be desired in the health service delivery.

According to the findings of the FGDs, greater majority of the population expressed concern about the inadequacy of health services, which adversely affected the health seeking behaviours of the people. This is further frustrated by the poor road conditions in the country outside of the Greater Banjul Area, especially in the North Bank Regions of River Gambia and also the high cost of transportation to access services. Across all the FGDs conducted, participants generally lamented the constraints they endure regarding access, not only health but other development opportunities. Here are some of the major findings quoted by the participants in the Box below:

"Going to Farafenni is the problem for us here because of the means of transportation and the distance. We don't have a nearest facility and Farafenni is the only place for us, the doctors are good, the treatment is excellent, and the results are great but it takes time. Going to Farafenni may cost more than D100, ticket is D25, glasses cost between D250 – more than D1000, excluding medication and food" **– Pallen Wollof**.

"Some major eye treatments are done in Basse for free, one only need to bear the cost of transport, ticket, medicine and sometimes glasses if needed. It may cost one more than D2000 if all these things are on board" **- Diabugu**.

"The only available eye care service is in Basse. The main problem is the cost of transportation to Basse. The road to Basse is seriously damaged, the river banks from both sides have flooded, a dangerous situation year after year. This is a dire consequence for patients wanting to access Basse. Some people use motor bikes, bicycle and even foot to go

to Basse. The demand of travelling to Basse is costly, tiring and dangerous" - **Taibatu**

"Some people go up to Kanifing for treatment if Kerewan or Farafenni cannot solve one's problem. Transportation cost to Farafenni from Suwareh Kunda is D120, ticket is D25, the medicine will depend on the nature of the eye infection, the total cost may add up between D500-D1000" – **Suwareh Kunda.**

"To travel to Farafenni for medical attendance, the fares cost D100; ticket is D25 plus the medicine depending on the condition of the ailment. Kerewan cost D50 and the Kombos will cost around D150" **- Doobo.**

"The first cost to the hospital is D25 for then ticket, with medicine will depend on the type of infection one may have and will surely determine the price. It is not easy for us even though we have a hospital in our town. We have limited eye care specialists in the hospital" - **Farafenni.**

Across all the FGDs conducted in the North Bank regions, participants generally expressed concern about high cost of transportation, poor road conditions and cost of glasses inhibiting access to eye care services especially refraction. These concerns correlate to high prevalence of poverty, and over centralization hence the limited number of the facilities requiring patient's frequent travel to far places where services are available.

In the South Bank Regions, participants in Fuladu West invariably recur the same opinions with respect to access except road conditions. Here is one of the participants said; "Going to Bansang for treatment including consultation fee and other charges may cost one more than D300. We use foot if there are no other means of transportation and the distance to Bansang is 6 km. it can take roughly 180 minutes on foot and 20 minutes with car, with cart 60 minutes" **Keser Kunda**. In Janjanbureh, the expressed concern was; "The cost of trekking to Bansang includes fares at D50, ticket D25 and medicine between D50 to D100 depending on the type of eye infection. Sometimes you are lucky to get the medicine from them but most of the time people buy medicine from the local pharmacies. Going to Bansang takes 30-45 minutes using private, commercial or motor bike".

Eye infected patients in the Lower River Region; most of them goes to Soma on less referred elsewhere for eye care services. Participant in Sankandi FGDs said;
"*Going to soma fares cost D100, ticket D25 and cost of medicine is D75, proceeding to Farafenni means more money and with food, the cost increases. It may take 60 minutes or more to get there". Similarly, in the regions the same concerned regarding transport cost*

floated around for those far away from service centers. Generally, transportation is considered an added cost to access social and economic services across the FGDs conducted in the country especially those in the North Bank Regions/districts of River Gambia"

4.2.3 Affordability

Affordability of any service is constrained by demand and supply and other associated factors. Demand in general is determined by one's economic status that is the propensity to pay for the service, given that the said service is supplied. In this scorecard survey, the issue of affordability has been discussed in relation to the cost of the services provided, cost of glasses and its availability and quality. Other associated cost involved transportation and testing and/or diagnosis of the refractive errors to ensure recommending appropriate glasses for the patients. The key issue discussed centered on the cost of glasses in all the focus groups was; what the participants thought would be the affordable cost of a pair of glass: In response, more than 70% of the communities recommended D50.00 in all regions given the poverty levels, economic stagnation with no jobs and the prevailing political atmosphere with a dictator controlling the mantle of affaires of the nation.

Going by the findings of the FGDs, participants generally complained of the cost of transport, treatment and glasses across the whole country. This is perhaps due to the uneven and disperse distribution of available eye care service centers in the country; further exacerbated by poverty, and also the fact that eye care centers are all either located in Greater Banjul Area, or in the few growth centers, and/or regional headquarters in the Gambia makes access difficult.

According to the FGDs conducted in the North Bank Regions of River Gambia, participants raise concern about some of the associated cost of affordability as quoted in the box below:

"Today we know where to go but the cost of transport and treatment is the problem. The appointments are many and costly based on Mondays and Thursdays. You spend almost D1000 with an ID and without ID, pretty expensive. We prefer something far cheaper as the 'eye controls the human existence' (BOT MO YOREE DOM ADAMA). I will do whatever it takes to get it fixed. Going to Farafenni may cost more than D100, ticket is D25, glasses cost between D250 –more than D1000, excluding medication and food" – **Pallen Wollof.**

"Cost of the glasses should be tailored to what people can afford. "If you want to help, those who cannot afford are considered, the help has to be reasonable, simple, affordable and within reach. D50 will help the poor" **– Ndungu Kebbeh.**

"I was diagnosed with an eye infection and I was recommended to buy glasses which will cost D250 but I could not afford it and up to date I am without it. Kerewan is the nearest place and sometimes the cost can be around D1000" **– Suwareh Kunda**

On the South Bank regions of River Gambia, similar sentiments regarding affordability have been expressed. The whole problem of affordability has direct bearings on access as an added cost to the services and glasses as the services are far away from those who are affected and needed treatment most. The focus group discussions with participants in the east of GBA, revealed the followings as quoted in the box below:

"*All those I know who visited, bought their glasses at d150, which is not bad for the poor and farming communities*" - **Sankandi**

"All those I knew who went to Bwiam for treatments are all okay. Some got glasses but I don't know how much it cost them. I believe the glasses also will depend on the type eye infection and prescription. I would prefer the glasses to cost no more than D50" – **Sintet Tamba Kunda**.

"I went to Kanifing to get treatment and after testing and diagnosis; I was prescribe to buy medicine from the pharmacy which cost me D75. I am also recommended to buy glasses at D250 but I am yet to do so because lack money. I would recommend for the glasses to be sold at D50 to allow even the poor the affordability. My eyes drop I am recommended to use is still working but has taken the illness longer to disappear" **- Mayork.**

"We would require more eye care service facilities around the country and would propose the glasses to be sold at D25 if not for free" **- Kafuta**

Participants contacted for FGDs within Greater Banjul Area also expressed their opinions with respect to affordability of eye care services more particularly on refractive errors. In Tujereng the participants said; "The glasses if not given for free should not be sold at more than D100", "The glasses they sell are very expensive. So, the best price for the glasses that the poor can afford is D50" – Jambajelly. Similarly, the same sentiment has been reiterated by the community of Jalanbang as quoted; "People buy glasses at D250 and above but we are proposing D50 or below if possible". In the FGDs with the community of Brikama

Wellingara, these are what the participants said; "I have eye problem but always go to the hospital, I even got my glasses there which I bought at D150. We would prefer the prices of the glasses to be lowered to D50. I was prescribed to buy lens, which I was unable to do so because it is very expensive, costing D1250".

Invariably, participants in the urban areas (KMC and Banjul) have their versions of story explained in the ensuing statements as quoted. In KMC, here is what one of the participants had to say; "With my eye problem, after testing, diagnosis, the medicine that was prescribe for me cost D750 and I bought my glasses at D250". I have short sightedness. The rest of the FGD members expressed concern that: "The cost of glasses is very expensive for the ordinary Gambia, so we will recommend D50 as the new price for glasses".

In Banjul it is surprising to note that, the FGDs conducted across the three districts generally recommended D50 for the cost of glasses as suggested by most of the groups the team had FGDs with. These are what they have said as quoted below:

"At Sheikh Zayed glasses are sold at D250 and above but we will recommend D50 as the new price that will be affordable to all Gambians" – **Banjul South**;

"If the glasses would not be given free, then D50 is a fair price for even the less fortunate" – **Banjul North**

"The best price affordable to all Gambians irrespective of region and family status is D50" – **Banjul Central**

5. Discussion on Findings

Awareness

Generally the awareness of the respondents about OneSight, both the quantitative and the FGDs recorded very low rating (15% and 7.1% respectively). Despite this low rating, their services are felt through the partners they are working with. This is consistent with OneSight's strategy for sustainability as they are hosted in government health facilities in order to give ownership to the people through the Government. One core philosophy of OneSight's operation is to take a "back-seat" and allow the National Eye health Programme to take the lead. OneSight is involved in the supervision, monitoring, advising and sharing expertise. As noted by some experts OneSight is the "Unsung Hero" behind the proliferation of eye care services in The Gambia.

With regards the awareness on refractive errors, the analysis indicated that more than 90% expressed their awareness and solutions. Comparing with the FGDs participants provided numerous solutions to eye related infections most of which hinges on traditional methods. Reasons given were; inadequate availability of services, infrastructure and transport cost to nearest service centers, waiting time and other associated cost. These really constrained most of them and eventually influence their recourse to local methods they know, which is less expensive even though they have some scientific implications. The most disturbing issue is most of them cannot explain the causes of their eye infections, nor can they differentiate which ones are due to refraction because of limited or no knowledge at all on refractive errors.

The utilization of health services mainly depends on the knowledge of the services users and also hinges more on the cost, nearness to the services and the conviction of the users. According to the findings of this study; more than 90% of the respondents utilized the services of health facilities for their imperfect eyesight, whilst only 5.4% recourse to traditional healers, home treatment and Others to remedy their eyesight problems. High response rate for people's knowledge about the value and importance of conventional medication as opposed to traditional and local treatment has increased significantly. This perhaps could be as a result of health sector sensitization programs conducted in the country and interaction with the health sector services providers.

Access

As revealed by the findings of the study, there are few specialized vision centers to respond to the demands of the population of 1.8 million in the Gambia. Most people access eye related services at hospitals, local medical dispensaries and private practitioners of which are generally located in urban areas. This leaves the rural areas constrained in accessing health services. This is further compounded by transport cost and other hidden cost associated with accessing services.

Considering the regional differences in terms of availability of the services, North Bank Region of this country stood out to be the most affected due to an uneven distribution of health facilities that are mostly located in urban areas. This leaves the rural dwellers travel far and near in order to access the eye care services. Poor road conditions, inadequate eye care facilities and personnel made access very difficult with its associated requirements in the rural areas.

As indicated in the findings, more than 80% of the respondents reported that the nearest eye care services are accessed in hospitals and clinics. This shows access to health facilities is urban related. Hence, the majority of our respondents are within the urban area which confirmed the findings of the study.

Affordability

Affordability is a critical component of accessing any services in particular health. Given the general level of poverty (48.4%) in The Gambia, coupled with the high cost of health care services, resulted in making health care services expensive for good number of Gambians and residence alike. The cost of eye health care can be divided into direct cost; which includes consultation fees, cost of medication/glasses etc. And indirect cost comprises; cost of transportation to and from eye clinic, cost of food/sustenance during eye treatment among others. There is high correlation of the findings of this study (Quantitative and FGD), with existing literature.

Analysis of willingness to pay for eye glasses revealed that in the country, respondents are willing to pay ranging from GMD 0 (free eye glasses) to GMD20, 000 for a pair of eye glasses. This reflects the rural-urban variances in terms of their socioeconomic. However, the

national average willingness to pay by respondents is GMD 261.47 ($6). The rural average is GMD 220 and the urban average is GMD 311 respectively. This is consistent with the poverty study results in the Gambia as rural-urban dimension. Urban dweller are willing to pay more than the rural dwellers because of their level of education and/or awareness, income, and the opportunity available to access services.

6. Conclusion, Lessons Learned and Recommendations

6.1 Conclusion

Generally, the community scorecard survey revealed a lot of issues that could be of importance to OneSight in order to improve on their activities in The Gambia. There is high level of awareness on refractive errors and solutions; as a result it portrays a positive health seeking behavior towards conventional treatment as confirmed by the study.

However, access to health services in the Gambia, is generally constrained by inadequate health facilities and qualified professional staff. This is further exacerbated by cost of services itself, which includes both direct and indirect cost, waiting time and poor road networks across the country, in particular, the North Bank Regions of The River Gambia. Therefore, utilization of services is grossly affected by the majority of those whom the services are designed for. This is confirmed by literature as indicated in the ensuing statement as; "Access to eye care services *affects its utilization by the public. Access to such services is affected by people not seeking eye care services, lack of eye care services and infrastructure, cost, lack of trained personnel, ignorance, poverty, gender, distance to the nearest eye care service providers, mode of transportation to and from the eye care service centers, the time taken to and from the eye care service centers and the cost involved in travelling to and from the nearest eye care service centers"* [1] Brien A Holden (2007).

In view of these, there is need for OneSight in collaboration with their partners to improve on their services delivery in terms of outreach and also reconsider the cost of corrective Glasses given the poverty situation in the country.

Overall, the study disclosed that over 85 percent of the respondents are aware that some people do not have perfect eye sight. Most of them, however noted that this knowledge of eye sight issues were obtained through their normal social life and interaction with government eye clinics. Only 3 percent of the respondents learnt of eye sight related issues through interaction with the various vision centers. This was further confirmed by the FGD results that, more than 90% of the panel members were not aware of OneSight. Only one out of every 10 people is aware of the use of corrective glasses to enhance defective sight. Similarly, over 70 percent of households are aware of service providers that help enhance eye related problems. Both the quantitative and qualitative findings confirmed respondents'

awareness about OneSight, through radio announcement which is the major source of information for almost all the respondents in the country, the other sources includes; friends and relatives, healthcare workers, television announcement, newspaper respectively. It was also clearly established that most respondents are aware that glasses can improve short or long sightedness. Their primary choice for this eye defect is not to purchase glasses but to purchase an eye-drop from the health center. In fact, about 75 percent would consider an eye-drop as primary remedy, 23 % would consider corrective glasses and the remaining 9% would consider some form of home treatment due to poverty. Hence, it is evident that people are aware of eye related problems, but they have little knowledge about the existence of OneSight because of their invisibility.

The analysis on the issue of who will pay for corrective glasses for someone with refractive errors, early 70 percent of households reported that the household head will be the one to pay should the need arise for any member of the households. The remaining percentages indicated that the cost would be borne by the affected member.

6.2 Lessons Learned

The three thematic areas of awareness, access and affordability formed the basis of this scorecard survey for OneSight's intervention in enhancing the health sector of The Gambia and its people for sustained development and growth. The relevance of vision for human productivity cannot be under estimated, if The Gambia wants to be recognized as a progressive nation.

The survey in its push and pull through the interactive approach of Focus Group Discussions unearth significant thoughts that can serve as part of the blue print in guiding OneSight's future endeavours. The three key words of **awareness**, **access** and **affordability** are the marketing strategy to help the project register profound revenue through the sale of the glasses by creating awareness built around vision centers for profitability, growth and sustainability. This approach aligns well with the marketing model of AIDA to which simply portrays building **awareness** around a product or brand for people to build **interest** and see the product as **desirable** to take care of needs or solve the problem. With this in mind, the individual is provoked to take **action** for sustenance of the business entity and sustained

growth for the individuals, thus depicting a win-win situation for both parties. The lessons deduced from the survey are many but not limited to the following;

1. A good number of the people across the country are aware of eye infection but not aware of OneSight and Refractive Error, a philosophy of the project to build brand awareness around the vision centers hosted in existing government health facilities.
2. It is discovered that the North Bank Region of the River Gambia compared to the South Bank is the poorest in terms of socioeconomic development with limited social and economic infrastructure which is attested by the existence of only one major hospital in Farafenni far away for most people to access.
3. There is serious lack of infrastructure that supports life in this country, and worst in the hinterland as the forgotten part of the country. No major health facility and the condition of the roads are in deplorable conditions to ease commuting for some patients in their effort to access the nearest facilities.
4. It is also a proven fact that access to information is largely through the radio and also through the traditional political structures from the above to the Alkalo and then to the people for local consumption. It shows how underprivileged the other parts of the country is when it comes to access of modern information dissemination portals, owing to lack of capability by GRTS and internet providers to make services available to the hard reach places.
5. It is discovered that the decision to take care of one's need is individually challenged but there also exist a strong communal and social networks that influence in supporting one another in addressing problems. Strong collective belongings exist in both the rural and urban settings, showing typical Gambian characteristics.
6. The whole country through a general conclusive agreement from the 28 districts contacted for FGDs considered D50 to be the most reasonable cost for glasses if it cannot be given free. The perception of the majority of Gambians is that health related services or activities should be free as propagated by the government political machinery through rigorous preaching. The poverty situation of the people is another defining factor as most of them are poor farmers.
7. A good number of people still resort to the use of traditional treatment methods, even though the benefits of western treatment outweighed in results. Some used localize treatment due to unaffordability concerns as westernize treatment goes along with some hidden costs. In view of these some surrender their illnesses to the mercy of God and therefore becomes impaired mainly due to poverty or access to vision centers.

8. It is discovered that conducting surveys during election year or a month away from campaign period may compromise the results. Some respondents demonstrated political interference and as such entrench favoritism for the ruling party as the might of fear of reprimand overcome everyone during the moments of sessions, some responses portrays political language.
9. Most of the people who participated in the discussions could not relate the cause of their eye problem; whether due to the foods consumed, drinking water, dusty environment, extreme exposure to light or inherited from their parents among others.

6.3 Policy Recommendations

- Strengthen outreach services to the underserved communities across the country
- Promote, expand and strengthen primary health care services with the inclusion of eye specialist in the country
- Promote mobile medical Ambulance services
- Strengthen health sensitization program with the inclusion of the refractive error messages and its related causes
- Improve financing of health services using the experience of PHC, BI and DRF
- Close the disparity in the demand of health services between Urban and rural
- Improve on the road networks in all regions to avail communities access services with less cost
- Encourage affordable public transport system in all regions to enhance communication
- Rationalize expansion of health services country wide
- Improve the infrastructure and logistic requirements of the health services in the country
- Provide adequate, qualified health professionals in all regions of the country
- Provide acceptable incentives for health professionals serving in the hinterland of the country to ensure retention.

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8. Appendices

Appendix 1: Questionnaire for OneSight Survey

Introduction

This study is commissioned by OneSight Gambia and is being executed by a Team of Consultants at the University of The Gambia. The main focus of this study is to assess the Awareness, Affordability and Accessibility of OneSight's programme intervention in The Gambia. The responses you provide will be treated with confidentiality and anonymity. Your consent is being sort to proceed with the administration of the questionnaire for ethical reason. Thank you for your time and cooperation in advance.

Name of Enumerator: ……
Name of Supervisor: ……..
Interview Date: ……..
Interview Start Time:…….. ……
Interview End Time:…….. ……

1.0 Respondent's background information

1.1	Regional Area	1=Banjul 2=Kanifing 3=West Coast Region 4=North Bank Region 5=Lower River Region 6=Central River Region 7=Upper River Region
1.2	Name of Village	
1.3	Household Number	
1.4	Household Settlement	1=Rural 2=Urban
1.5	Name of respondent	
1.6	Age of respondent	
1.7	Marital Status of respondent	1=Single 2=Married

		3=Divorced 4=Separated 5=Widowed
1.8	Gender of respondent	1=Male 2=Female
1.9	Ethnicity of respondent	1=Mandinka 2=Fula 3=Wollof 4=Jola 5=Sarrahuleh 6=Others
1.10	Are you the head of this household?	1=Yes 2= No
1.11	Are you the member of your household who typically makes the financial decision regarding healthcare?	1=Yes 2= No
1.12	Who typically makes financial decisions in the household?	1= Partner 2=Parents; 3= Siblings; 4= Son/daughter 5= Others
1.13	Have you attended any **formal** or **non - formal** education (including adult learning or Madarassa)? **If no skip to 1.15**	1=Yes 2= No
1.14	What is the **highest level of education** you have attained (including adult learning)?	1=Pre-school 2=Primary 3=Secondary 4=Tertiary 5=Adult literacy
1.15	Employment Status	1=Self-employed 2=Employee (paid worker) 3=Unpaid family worker 4=Not working

1.16	In which of the following income brackets does your monthly income fall?	0= On income 1=less than 500 2= 501-1500 3= 1501-2500 4= Over 2500
1.17	What is the household's daily consumption expenditure? **Hint:** This can be given in terms of cups of rice or other food stuff to help respondents calculate equivalent currency value	

2.0 Household Information

2.1 Household Schedule

Person	Relationship to head of household	Sex	Age	Marital status	Ever attended school (yes/No) if "No" skip to next person	Level of attainment	Years of education

Codes for Marital Status
1=Single
2=Married
3=Divorced
4=Separated
5=Widowed

Codes for: Relationship to Head of Household
01=Head
02=Wife or Husband
03=Son or Daughter
04=Son-in-Law or Daughter-in-Law
05=Grandchild
06=Parent
07=Parent-in-Law
08=Brother/Sister
09=Other Relative
10=Foster Child
11=Not Related
98=Don't Know

Education Level
1=Pre-School
2=Primary
3=Secondary
4=Tertiary

2.2 How many rooms in this household are used for sleeping?

2.3 Does this household own any livestock (cattle), draught animals (Horse and donkey) or small ruminants (sheep, goat and poultry)?

Yes	1
No	2

2.4 Does the household own any of the following livestock/draught animals/small ruminants?

Type	Number
Cattle	1=Yes, 2=No
Horse	1=Yes, 2=No
Donkey	1=Yes, 2=No
Sheep	1=Yes, 2=No
Goat	1=Yes, 2=No
Pig	1=Yes, 2=No
Poultry	1=Yes, 2=No

2.5 How many of the following livestock/draught animals/small ruminants does the household own?

Type	Number
Cattle	
Horse	
Donkey	
Sheep	
Goat	
Pig	
Poultry	

2.6 Does any member of the household own agricultural land?

Yes	1
No	2

2.7 Does the household have enough land for its agricultural use?

Yes	1
No	2

2.8 Does the family sell part of their agricultural harvest?

Yes	1
No	2

2.9 What are the sources of revenue for this household?

1	Sale of farm animals
2	Sale of crop produce
3	General trading
4	Remittances

5	Salary/wages
6	Fishing/mining
7	Services
8	Others

2.10 Please rank the household's revenue from each of the sources below?

1= most important source; 8=least important source

Sale of farm animals	
Sale of crop produce	
General trading	
Remittances	
Salary/wages	
Fishing/mining	
Services (mechanics, carpentry etc.)	
Others	

2.11 Does the household have any of the following?

Electricity	1=Yes, 2=No
Radio	1=Yes, 2=No
Television	1=Yes, 2=No
Mobile	1=Yes, 2=No
Computer	1=Yes, 2=No
Refrigerator	1=Yes, 2=No

2.12 How often do you or any member of the household listen to the radio?

Daily	1
Weekly	2
Monthly	3
Less than monthly	4

2.13 How often do you or any member of the household watch television?

Daily	1
Weekly	2
Monthly	3
Less than monthly	4

2.14 What is the main floor cover used in the household?

Earth/cow dung	1
Cement or Carpet	2

Tiles	3

3.0 Awareness of Refractive Errors (Unaided)

3.1 Are you aware that some people have imperfect eyesight?

Yes	1
No	2, **if no skip to 3.3**

3.2 What is your source of information about imperfect eyesight?

1	Sight Savers
2	OneSight
3	Government Eye Clinic
4	Sheikh Zayid
5	Others

3.3 How many members of this household have imperfect eyesight?

Male	
Female	

3.4 Are you aware that wearing glasses can enhance some eyesight?

Yes	1
No	2

3.5 Have you or any member of your household ever heard about service providers that helps remedy eye-related problems?

Yes	1
No	2

3.6 Have you or any member of your household ever heard of ONESIGHT, an eye care service provider in the Gambia?

Yes	1
No	2, **if no skip to 3.12**

3.7 How did you come to know about ONESIGHT?

1	Radio announcement
2	Television announcement
3	Newspaper

4	Healthcare worker
5	Friends or relatives

3.8 Do you know of any place where you can obtain information about ONESIGHT?

Yes	1
No	2

3.9 What is your current source of information about services being provided by ONESIGHT?

1	Radio announcement
2	Television announcement
3	Newspaper
4	Healthcare worker
5	Friends or relatives
6	Other:

3.10 In the last 12 months, did a fieldworker visit you from ONESIGHT to talk about eye related problem?

Yes	1
No	2

3.11 What specific eye related problems were mentioned?

1	Difficulty to read street signs at a distance
2	Difficulty to see small objects that are closer
3	Difficult to thread a needle

3.12 Is there anyone in this house who has stopped working due to any of the following?

3.12.1 Poor eyesight

Yes	1
No	2

3.12.2 Impaired mobility

Yes	1
No	2

3.12.3 Hard to hear

Yes	1
No	2

3.13 How many men and women suffer from the following symptoms?

1	Difficulty to read street signs at a distance	Male	Female
2	Difficulty to see small objects that are closer	Male	Female
3	Difficult to thread a needle	Male	Female

3.14 If a member of the household has imperfect eyesight, what would you do immediately?

1	Take her/him to health facility
2	Take her/him to traditional eye care
3	Home treatment
4	Others

3.15 When a person is myopic (short-sightedness) or hyperopic (long-sightedness) is there any possible solutions to make eyesight better?

Yes	1
No	2

3.16 When a household member is myopic or hyperopic which of the following are you most likely to use? (Please rank from 1 to 3, where 1 is most useful)

1	Home treatment
2	A pair of corrective glasses
3	An eye-drop from health center

3.17 If a child were myopic (short-sightedness) or hyperopic (long-sightedness) would you recommend him or her to wear corrective glasses?

Yes	1
No	2

4.0 Affordability

4.1 Is there any cost required in making eyesight better?

1	Yes
2	No
3	I don't know

4.2 How much are you willing to pay for a pair of eye glasses?

4.3 If the cost of obtaining corrective glasses were GMD250, how many would you be able to afford per year?

4.4 If somebody needs a pair of glasses in this household, who would be willing to pay?

1	Respondent
2	Person him/her self
3	Others

5.0 Accessibility

5.1 What is the nearest eye care services provider?

1	Hospital/clinic
2	Eye care center
3	Traditional healers
4	I don't know

5.2 Does this household have access to a formal eye care center?

Yes	1
No	2

5.3 Is the nearest eye care facility located in the same village with this household?

Yes	1
No	2

5.4 What is the mode of transport to and from the eye care services center?

1	Car
2	Cart
3	Motor Bike
4	Bicycle
5	Foot
6	Other (please specify):

5.5 Approximately how long would it take to travel to and from the nearest eye care center using the following means?

Mode of transport	Time (mins)
Car	
Cart	
Moto bike	
Bicycle	
Foot	
Other (please specify):	

5.6 What is the cost of travelling to and from the nearest eye care center using each of the means of transport?

Mode of transport	Cost of return trip (Dalasis)
Car	
Cart	
Moto bike	
Bicycle	
Foot	
Other (please specify):	

5.7 If the household has income to buy corrective glasses for either a female or a male member, who would it buy for?

1	Will buy for the male
2	Will buy for the female
3	Both male and female have equal chance of getting it

5.8 If there is any myopic or hyperopic patient without corrective glasses, why do you think the person does not have corrective glasses?

1	Too far
2	Too expensive
3	Too long waiting time
4	Do not belief glasses can help
5	Do not know about availability of eye care service
6	Others (please specify):

Appendix 2: OneSight Survey (Focus Group Discussion Guide)

Introduction

We are a team from OneSight conducting a survey about eyesight and would really value some of your time to spare with us. The findings of this survey will be used to help improve eyesight services in The Gambia. Your thoughts and opinions are very important to guide us improve the quality of the services.

Name of Moderator:…….

Name of Secretary:……..

Interview Date:……

Interview Time:……...

Village/Community:……

Number of Participants:…….. # of Male:…….. # of Female:…….

The discussions will be centered into three "Thematic" areas:

1. **Awareness of Refractive Errors**
   1.1. Unaided Awareness
   1.2. Aided Awareness

2. **Awareness of Solutions**

3. **Access**
   3.1. Availability of eye care infrastructure
   3.2. Availability of eye care services
   3.3. Cost involved in eye care provision

Awareness – Unaided

- Knowledge about the eye care services
- Availability of eye services
- Type of eye care services
- Provider of eye care services
- Place of eye care services

- Quality of eye care services

Awareness Aided

- Awareness of eye care services
- Sources of awareness
- Type of awareness
- Duration of awareness
- Type of services available
- Place of eye care services

Awareness of Solution

- Possibility of making eyesight better (possible solutions).
- Point of contact to make eyesight better (Places visited for eyesight care)
- Cost involved in improved eyesight (amount paid per service)
- Payment of eyesight services (how is it paid? who is willing to pay?) Probing questions.
- Adequacy of eyesight services
- Quality of eyesight services
- Coping mechanisms

4. Access to eyesight care

- Availability of eye care Infrastructure
- Availability of eye care services
- Distance to service center
- Travel time to service center
- Cost of travel to service center
- Cost involved in eye care service
- Associated cost of services (this may include cost of glass, frame, etc.)

Appendix 3: Number of Participants Across the Country Representative of Each District.

	Place/Village	Male	Female	Youth	Total	Time (Minutes)
1	Pallen Wollof	7	5	2	14	34
2	Tandy Mandinka Kunda	5	6	2	13	20
3	Diabugu Batapa	7	5	4	16	20
4	Taibatu	3	3	2	8	39
5	Keser Kunda	4	6	3	13	21
6	Sukur	7	4	2	13	12
7	Ndunggu Kebbeh	4	5	2	11	23
8	Suwareh Kunda	3	5	4	12	20
9	Doobo	4	3	3	10	27
10	Yalal Tankung Jala	8	4	2	14	24
11	Farafenni	7	4	1	12	13
12	Janjanbureh	7	0	0	7	36
13	Gambisara	5	5	1	11	20
14	Suduwol	4	4	1	9	20
15	Sankandi	3	3	2	8	30
16	SintetTamba Kunda	4	5	5	14	24
17	Mayork	6	6	2	14	26
18	Tampoto	6	0	2	8	18
19	Kafuta	12	4	2	18	33
20	Tujereng	1	3	1	5	30
21	Jambanjelly	2	6	2	10	25
22	Jalanbang	3	2	1	6	25
23	Wellingara(Brikama)	5	4	1	10	23
24	Busumbala	5	3	1	9	20
25	KMC(5 Districts)	8	8	4	20	45
26	Banjul South	7	3	2	12	25
27	Banjul North	6	3	1	10	25
28	Banjul Central	6	5	2	13	20
	TOTAL	**149**	**114**	**57**	**320**	**698**

Appendix 4: Number of FGD Participants by Categories

No.	Youth (Male)	Youth (Female)	Total	Male	Female	Total
1	1	1	2	8	6	14
2	1	1	2	6	7	13
3	2	2	4	9	7	16
4	1	1	2	4	4	8
5	2	1	3	6	7	13
6	1	1	2	8	5	13
7	1	1	2	5	6	11
8	2	2	4	5	7	12
9	2	1	3	6	4	10
10	1	1	2	9	5	14
11	0	1	1	7	5	12
12	0	0	0	7	0	9
13	0	1	1	5	6	11
14	1	0	1	5	4	9
15	1	1	2	4	4	8
16	3	2	5	7	7	14
17	1	1	2	7	7	14
18	1	1	2	7	1	8
19	1	1	2	13	5	18
20	1	0	1	2	3	5
21	1	1	2	3	7	10
22	1	0	1	4	2	6
23	0	1	1	5	5	10
24	1	0	1	6	3	9
25	2	2	4	10	10	20
26	1	1	2	8	4	12
27	1	0	1	7	3	10
28	1	1	2	7	6	13
				180	**140**	**320**

Appendix 5: Training Report of Enumerators for OneSight Survey

Sixteen (16) Enumerators were trained for three days. They were selected from the School of Business and Public Administration, University of The Gambia, Kanifing Campus. The table below provides their names, contact details and languages of competence:

No	Surname	Name	Tel	Email	Language
1	Jallow	Cherno	3179631	cherno65@gmail.com	W F
2	Jallow	Assan	3732601	assanjallow93@yahoo.com	M F W
3	Bojang	Ansumana B.	39974422/7337440	bojang448@gmail.com	M J W
4	Jallow	Abdoulie A.	3656671/2336852	abjallow@utg.edu.gm	F M W
5	Jarju	Alieu	3862177	badouboi7@gmail.com	M J W
6	Camara	Yusupha	7407355	yusuphacam@gmail.com	F M W
7	Sanyang	Yusupha	9181818	waggi2004@gmail.com	M W
8	Kanteh	Fatoumatta	3824264/7060929	fk2134010@utg.edu.gm	M W
9	Manneh	Jabou	3988003	yajaboumanneh@gmail.com	W F
10	Barry	Mamadou A.	7959289	madamabarry@gmail.com	W F
11	Camara	Malick	7967812/6606790		M W
12	Cham	Fatoumatta K.	3923505	chamfatou22@gmail.com	M W
13	Sanyang	Musa J.	3020608	mjsanyang@hotmail.com	M W
14	Sonko	Mariama	3049747	sonkomariama185@gmail.com	M W
15	Jammeh	Bakary	3650153/7378924	bjammeh@utg.edu.gm	M W J F
16	Hydara	Muhammed	3850313/3145503	mhydara@utg.edu.gm	M W F

Language: M means Mandinka; F means Fula; W means Wollof & J means Jola

Appendix 6: Training of Enumerators

Day 1: Training of Enumerators on Administering of OneSight's Questionnaire

Chairman : Dr. M. M. Fanneh

Facilitators : Dr. Bumi Camara & Mr. Yusupha Dibba

Coordinators : Mr. Lang Sanyang & Mr. Christopher Belford

The Enumerators were exposed to the administration of the OneSight questionnaire, each questions in the questionnaire were meticulously introduced by the facilitators for clarity and comprehension. Thereafter the questions were appropriately translated in the local languages of Mandinka, Fula, Wollof and Jola.

The following were the areas of emphasis buttressed by the facilitators, they dilated that the questions must be well understood by the respondents:

1. Respondent's Background Information- for the purpose for collecting demographic characteristics of the respondent's.
2. Household Information-for the purpose of capturing household relationships and characteristics
3. Awareness of Refractive Errors- for the purpose of assessing the level of aided and unaided awareness of eye related problem
4. Affordability of Products and/or Services- for the purpose of knowing the household/individual's willingness and ability to remedy eye problem by purchasing products and/or services
5. Accessibility to Eye Health Care Service Center- for the purpose of verifying whether patients have access and means to access eye care service facilities

Day 2: Training of Enumerators on Moderating, Observing and Recoding OneSight's Focus Group Discussion Guide

Chairman : Dr. M. M. Fanneh

Facilitators : Dr. Bumi Camara & Mr. Yusupha Dibba

Coordinators : Mr. Lang Sanyang & Mr. Christopher Belford

The Enumerators were trained on how to perform the following functions during a focus group discussion:

a) Moderating/Chairing
b) Observation of participants to ensure equal participation
c) Recording (Scribe/Secretary)- to record proceedings

The thematic areas the Enumerators were exposed to during the training on the use of OneSight's focus group discussion guide are as follows:

1. Awareness of Refractive Errors
2. Awareness of Solutions
   (a) Awareness – Unaided
   (b) Awareness Aided
   (c) Awareness of Solution
3. Access
   (a) Access to eyesight care

During the focus group discussion training the Enumerators perform simulation exercises to depict typical village settings were various local languages were used in facilitating focus group discussion.

Day 3: Training of Enumerators on Magpi and Pre-testing of Questionnaire and FGD Guide at Tanji Village (Kombo South)

Chairman: Dr. M. M. Fanneh

Facilitators: Dr. Bumi Camara & Mr. Christopher Belford

Coordinators: Mr. Lang Sanyang & Mr. Yusupha Dibba

The Enumerators were trained on the use of mobile phone software (Magpi) to collect the data. The following were the essential elements the Enumerators were exposed to:

1. Plain Text- Enumerators can use plain text enter text information in text format
2. Integer- For the purpose of entering integer responses e.g. (0, 1, 2, 3…)

3. Decimal- For the purpose of entering decimal value responses e.g. (0.04, 1.01etc.)
4. Drop Down- Enumerators can use drop down to select a single response from the options that you provide (multiple choice)
5. Radio Button- Enumerators can select a single response from the options that you provide (multiple choice)
6. Check Box- Enumerators can select several responses from the options you provide (multiple choice)
7. Date- Enumerators can use this option for entering date
8. GPS- Enumerators use GPS to enter the location information of respondents

Pre-Testing of Questionnaire at Tanji Village (Kombo South)

The pre-testing of the questionnaire was done at Tanji village, Kombo South District. Tanji was selected due to its unique characteristics i.e. it is a semi-urban center, the village is inhabited by multi-ethnic group, and the inhabitants are of various socio-economic backgrounds, hence the rationale for selecting Tanji village.

During the pre-testing the Consultants ensured that the Enumerators elicit accurate response from the respondents. The questionnaire was pre-tested in the context of the following:

1. To ensure that the questions measure what they are supposed to measure
2. To ensure that the respondents comprehend all terms in the questionnaire
3. To ensure that questions are interpreted in the same manner by all respondents
4. To ensure that the questions create a positive impression, thus motivating respondents to answer
5. To ensure that the responses are selected accurately with no ambiguity
6. To ensure that there are no aspects of the questionnaire that will suggest any biasing attempt from the researcher

Finally upon completion of the Pre-testing exercise the following 14 Enumerators were selected, the table below provides their names and postings:

S/N	Surname	Name	Posting
1	Jallow	Cherno	South Bank Region
2	Jallow	Assan	North Bank Region
3	Bojang	Ansumana B.	South Bank Region
4	Jallow	Abdoulie A.	North Bank Region
5	Camara	Yusupha	North Bank Region
6	Sanyang	Yusupha	South Bank Region
7	Kanteh	Fatoumatta	South Bank Region
8	Manneh	Jabou	Greater Banjul Area
9	Barry	Mamadou A.	Greater Banjul Area
10	Camara	Malick	North Bank Region
11	Cham	Fatoumatta K.	North Bank Region
12	Sanyang	Musa J.	Greater Banjul Area
13	Sonko	Mariama	Greater Banjul Area
14	Jammeh	Bakary	South Bank Region

End of Training Report

Appendix 7: Focus Group Discussion Matrix

Region	District	Name of Community	Adult Participants		Youth Participants		Total Participants		
			M	F	M	F	M	F	Total
Kerewan	Sabach Sanjal	Pallen Wollof	7	5	1	1	8	6	14
	Lower Niumi	Ndunggu Kebbeh	4	5	1	1	5	6	11
	Lower Baddibu	Suwareh Kunda	3	5	2	2	5	7	12
	Central Baddibu	Doobo	4	3	2	1	6	4	10
	Illiasa	Yalal tankong Jala	8	4	1	1	9	5	14
	Illiasa	Farafenni	7	4	0	1	7	5	12
Kuntaur	Sami	Tandy Kda Mandinka	5	6	1	1	6	7	13
Janjan-bureh	Janjanbureh	Janjanbureh	7	0	0	0	7	0	7
Basse (URR)	Sandu	Diabugu Batapa	7	5	2	2	9	7	16
	Wuli West	Taibatu	3	3	1	1	4	4	8
	Fulladu East	Keser Kunda	4	6	2	1	6	7	13
	Fulladu West	Sukur	7	4	1	1	8	5	13
	Jimara	Gambisara	5	5	0	1	5	6	11
	Kantora	Suduwol	4	4	1	0	5	4	9
LRR	Kiang West	Sankandi	3	3	1	1	4	4	8
West Coast Region	Foni Jarro	Sintet Tamba Kunda	4	5	3	2	7	7	14
	Foni Bondali	Mayork	6	6	1	1	7	7	14
	Foni Bintang	Tampoto	6	0	1	1	7	1	8
	Kombo East	Kafuta	12	4	1	1	13	5	18
	Kombo South	Tujereng	1	3	1	0	2	3	5
	Kombo South	Jambanjelly	2	6	1	1	3	7	10
	Kombo Central	Jalanbang	3	2	1	0	4	2	6
	Kombo Central	Brikama Wellingara	5	4	0	1	5	5	10
	Kombo North	Busumbala	5	3	1	0	6	3	9
Greater Banjul Area (GBA)	KMC	KMC	8	8	2	2	10	10	20
	Banjul South	Banjul South	7	3	1	1	8	4	12
	Banjul North	Banjul North	6	3	1	0	7	3	10
	Banjul Central	Banjul Central	6	5	1	1	7	6	13
Total	**28 Districts**	**28 Communities**	**149**	**114**	**31**	**26**	**180**	**140**	**320**
			46.6 %	**35.6 %**	**9.7 %**	**8.1 %**	**56.2 %**	**43.8 %**	**100 %**

Appendix 8: Debriefing of Onesight Enumerator's Report

Attendance

Facilitator: Dr. Momodou Mustapha Fanneh (Lead Consultants)

1. Mr. Yusupah Dibba (Consultants)
2. Mr. Christopher Belford (Consultants)
3. Mr. Gibriel Badjie (Consultants)
4. Aboulie A. Jallow (Enumerator North Bank Region)
5. Assan Jallow (Enumerator North Bank Region)
6. Fatou K. Cham (Enumerator North Bank Region)
7. Cherno Jallow (Enumerator South Bank Region)
8. Fatou Kanteh (Enumerator South Bank Region)
9. Musa Sanyang (Enumerator Greater Banjul Region)
10. Mariama Sonko (Enumerator Greater Banjul Region)
11. Adama Barry (Enumerator Greater Banjul Region)
12. Jabou Manneh (Enumerator Greater Banjul Region)

Introduction

Dr. Fanneh started by thanking the enumerators for accepting to serve as data collectors he stressed the fact that they were chosen among many to serve this important function. He further noted that the data collection exercise occurs with many hitches and constraints but notwithstanding he pointed out the enumerators did an excellent job. He also highlighted the fact that some of the constraints encountered in some of the regions causes the delay in completing the data collection as was previously scheduled. Given the aforesaid reason Dr. Fanneh explained that this was the reasons why additional enumerators were hired to finish the data collection in the Greater Banjul Region.

For his part Mr. Dibba started by asking the Enumerators to answer the following two important questions about the survey.

1. Name or list any three good (positive) things that work / serve you well and have a relation or connection to the research. (Related to Experiences)
2. Name or list any three bad (negative) things that work / serve you well and have a relation or connection to the research. (Related to Experiences)

Positive Experiences of the Enumerators during Field Exercise

1. The respondents were able to respond well to the various sections of the questionnaire.
2. The respondents were able to express themselves with freedom.
3. There was team spirit and mutual understanding within the team of Enumerators.
4. The exercise shows how people's level of awareness has been raised regarding knowing the difference between perfect and imperfect eye (defective eye).
5. It was evident during the field work that due to health eye care education, information and communication that people are abandoning local treatment in favour of westernized treatment.
6. Respondents responds to questions with high level of maturity.
7. The study engaged different age groups, gender and ethnicity.
8. As Enumerators they were able to convince people to take their time to answer questions.
9. The data was available.
10. The manner in which the questions were framed was coherent.
11. It was observed that there is greater awareness of eye infection.
12. Questions were logically arranged which makes it easier to administer without fear of harassment or discrimination.
13. The Alkalos (village head) were very cooperative.

Negative Experiences of the Enumerators during Field Exercise

1. Transportation problem due to car break down caused a waste of time and increase the survey cost.
2. The road condition was very poor in some regions
3. Too many questions contained in the questionnaire.
4. Some respondents expected reward at the end of the questionnaire administration.
5. Some villages are far from each other, many stops on the journey to ask people for directions and confirmation, caused a waste of times.
6. A few respondents drove some Enumerators out when certain questions were asked which caused incomplete responses for very few questionnaires.
7. Few respondents hesitated to answer some questions of personal nature.
8. Many villages were part of the sample to cover in the survey.
9. The number of days allocated for the data collection is not enough.

10. Given that the data collection occurred during a period closed to the Presidential election some respondents thought the survey was related to politics.
11. The sample size was too large, to cover everything within 10 days.

Appendix 9: Discussion with OneSight Officials at OneSight Kuto Office on the 28th December, 2016 at 12 Noon

Attendance

1. Dr. Momodou Mustapha Fanneh (Lead Consultant, UTG)
2. Mr. Yusupha Dibba (Consultant, UTG)
3. Mr. Christopher Belford (Consultant, UTG)
4. Mr. Gibriel Badjie (Consultant UTG)
5. Mr. Mustapha A. Njie (Regional Manager for Expansion and Development, OneSight)
6. Mr. Vincent Mendy (Project Manager, OneSight)
7. Ms. Nyima Touray (Finance Manager, OneSight)
8. Ms Mariama O. Touray (Manufacturing & Logistic Manager, OneSight)
9. Mr. Musa Darboe (Regional Outreach & Marketing Manager, OneSight)

Introduction

Dr. Fanneh started by introducing the Team of Consultants from School of Business and Public Administration, University of The Gambia he further elaborated that the visit to OneSight Office was the final part of the process of information collection and gathering in other to generate the Survey Report by incorporating the views and perspectives of the project holders.

Mr. Yusupha Dibba who leads the discussion buttressed on the importance of the study, he explained that in research what is planned and what actually occurred in the field may at times differ, due to changing circumstance on the ground. He however assured OneSight that the Survey Report will be comprehensive and will generate new knowledge and also expand on existing knowledge.

Discussion

OneSight officially started in The Gambia as a project launched in Farafenni in April, 2013. But before then, a team of eye care charitable providers came to The Gambia in 2011 as a model to help in the communities of Gunjur and Brikama. Based on that exposure they

thought it wise to conduct a feasibility study to in order to translate their initial effort into something tangible and hence the model was titled "suitable vision care model".

OneSight is a nonprofit entity that collaborates with National Eye Health Programme under the purview of the Ministry of Health and Social Welfare and SightSavers, since its inception in 2013. Upon signing a Memorandum Of Understanding with Gambia Government through the National Eye Health Programme, Ministry of Health and Social Welfare, OneSight used government health facilities to host its project which should run from 2013 to 2018. What OneSight did was to add value to these government health facilities by;

1. Helping them in filing and record keeping of all cases and eye care service related activities
2. Add Refractive Error component to the already existing services related to Cataracts', Glaucoma etc. Correcting Refractive Error was only possible with the advent of OneSight in The Gambia
3. Launched Vision Centers
4. Teach and trained Gambian to correct refractive error
5. Supply additional staff to Vision centers
6. Supply and enhance all vision centers with equipment and facilities needed to serve patients better (refurbishment)
7. Supply all Vision Centers with glasses for sale to the needy people

The project since its inception has changed the face of eye health care and is expected to continue its operations until, 2018. The first phase of the project was the initial stage called the pilot phase, which looks into the introduction, reception and the initial impact on lives. The second phase was the transition phase which focused on efforts in order to help in the attainment of the project goals. The third phase called the post project phase that focused on addressing issues of sustainability of the project after it is been handed over to The Government of The Gambia. The fact that OneSight is hosted in government health facilities is a strategy for sustainability as the ownership is given to the people through the Government. One core philosophy of OneSight's operation is to take a back seat and allow the National Eye health Programme to *run the things*. OneSight involves in the supervision, monitoring, advice and share expertise. As noted by some experts OneSight is the "Unsung Hero" behind the proliferation of eye care services in The Gambia.

The marketing effort is aggressive in order to create awareness through the government set up health facilities. 75% of people are aware of the vision centers through the word of mouth Marketing Strategy. The objective of the Marketing team is to sell out OneSight brand name which they do by creating awareness on how to get eye health care services, which is achieved through the following media;

1. Radio campaigns
2. Trained traditional communicators who help to spread the message
3. Posters, billboards etc
4. Use intensive radio adverts for the vision centers for four months for people to know where to get their glasses.

Radio and word of mouth makes a big difference based on the experiences of others. The philosophy is to create awareness around center not OneSight. This is what OneSight Official called the Sustainability Strategy Model, according to them for the people to see the project as Gambia's eye care project. OneSight plays a consultancy role for government eye health care services. After a long awareness campaign, many people now appreciate the use of glasses and the glasses come with different price tags to ensure affordability. According to the OneSight Official the price of glasses ranges from D250 to D1,000.

OneSight have seven (7) Vision Centers in the Gambia namely; Kanifing, Brikama, Bwiam, Jarra Soma, Bansang, Basse and Farafenni. All these centers sell glasses and the idea is that when the project intervention phase out, for the vision centers to be self-sustaining. This was based on the evaluation phase that looks at economic conditions of the people and the population in general. A general conclusion is not run a charitable model but nonprofit model as the proceeds from the sale of glasses are to be used as a revolving fund, to meet other operating expenses of the vision centers.

Another model used by OneSight is the entrepreneurial model which initiates to reach out to the working class. This model is achieved by OneSight going into contractual arrangements with cooperate enterprises, to diagnose and sell glasses to their employees. These category of people (employees) doesn't have time to go to vision centers due to their busy work scheduled, hence OneSight provides eye care at their "door step". This new innovation is titled "Urban Mobile Pop Care"

Lugsatiga is the parent company of OneSight. The major part of OneSight's funding is from Lugsatiga which is the largest eye care company in the world known for providing quality vision glasses. Previously all glasses ordered by patients were sent to United States of America (USA) for manufacturing which takes up to 4 weeks before delivery. This delay raise lots of concern and customer dissatisfaction but today 98% of the glasses ordered are manufactured at Sheikh Zayed Regional Eye Care Center who are OneSight major local partner and collaborator. Currently glasses manufacturing take maximum 2 week to deliver to patients and only 2% of the glasses are sent to USA based on special needs. Lugsatiga does not compromise on quality, hence for those reasons OneSight glasses are second to known compared to their competitors in The Gambian market. The Gambia has now become a success story as far as eye health care is concerned and the model(s) used by OneSight in The Gambia is now been replicated elsewhere is West and East Africa.

Visit to Sheikh Zayed Regional Eye Care Vision Center

At the Sheikh Zayed Regional Eye Care Center, Dispensing Room where patients choose frames and make decisions to buy glasses. An Official of Sheikh Zayed Regional Eye Care Center explained that OneSight's partnership with Sheikh Zayed Regional Eye Care Center has helped to changed and transformed the operations of their office. She further buttressed that OneSight makes it possible to get cheap glasses in The Gambia. The glasses are of quality with a two year "life span" period, she noted that the glasses is supplied along with other accessories like the glasses case, cloth cleaner and the liquid cleaner.

Another Official of Sheikh Zayed Regional Eye Care Center elaborated that upon phase out of OneSight project, Sheikh Zayed Regional Eye Care Vision Center will be in a position to continue the services done by OneSight because according to her over the years they have learnt a lot from them (OneSight). She pointed out that they have been trained, supported and prepared by OneSight to consolidate on the gains registered by OneSight to ensure sustainability when the project end.

At Sheikh Zayed Regional Eye Care Center, Refraction center where scanning and prescription is done, the Official said OneSight has been a blessing for National Eye Health Programme. According to him OneSight provided the equipment and develop the capacity of the personnel. In his presentation he noted that Eye care service used to be a grey area but

with the intervention of OneSight a lot changed. He buttressed the pre-OneSight existence The Gambia could boost of 4 optometrists because the training is very expensive but during this short period OneSight was able to trained 10 personnel at first degree level. Finally the Official pointed out that their previous partners where "HelpMeSee and SightSavers" but they never look at Refractive Error which makes OneSight unique when compared with their other partners, given that 70% of the patients today are patients with refractive error.

Brief Meeting with the Coordinator of National Eye Health Care Programme

The Coordinator of the National Eye Health Care Programme (NEHP) said the Gambia Government provides quality eye care service mainly in the areas of cataracts and glaucoma but with OneSight's intervention and support, the NEHP makes eye care service more comprehensive by the addition of refractive error. He applauded the efforts of OneSight by providing vision centers in all government major health facilities for which the government is very grateful, which gives easy and quick access without having to travel far to access such needs eye care services as pointed out by the NEHP Coordinator. The Coordinator buttressed that, OneSight make is easier for one to get glasses at an affordable price compared to before when only Apex Optic, a private entity provides glasses at very expensive rates. He continued that, OneSight gave equipments, developed the human resource base and refurbish the infrastructure of all the Visions Centers across the country. He rated OneSight services above 90% compared to others in the eye care health sub-sector. Finally the NEHP Coordinator, expressed his desired to see more vision centers in the North Bank Region of The Gambia which only has one vision center in Farafenni currently.

Appendix 10: Itinerary for Onesight Country Wide Survey

Depar-ture date	LGA	District	Place of Interview		No of inter-view	FGDs	Night stops
Day 1 7/10/2016	NBR	Lower Nuimi	1	Kanuma	8		
			2	Fass Njaga Choi	25		
			3	Macca Bala Manneh	5	*FGD Target	
			4	Ndungu Kebbeh	28		
Day 1 7/10/2016		Lower Badibu	5	Kerewan	52		
			6	Suwareh Kunda	14	*FGD Target	
Day 1 7/10/2016		Central Badibu	7	Dobo	15	*FGD Target	
			8	Njaba Kunda	51		
Day 1 7/10/2016		Illiasa	9	Jeriko fula	1		
			10	Yalal Tanking Jala	1		
			11	Ka Chang	4	*FGD Target	
			12	Farafenni	60	*FGD Target	
Day 2 8/10/2016		Sabach Sanjal	13	Pallen Wollof	38	*FGD Target	
			14	Madina Sabach	4		
			15	Sabach Ngagen	8		
			16	Ngaine Sanjal	16		
Day 2 8/10/2016	CRR	Kuntaur Sami	17	Jamal Keba Jobe	1		
			18	Changai Wollof	11		
			19	Reneru Fula	7	*FGD Target	
			20	Jandy Kunda Mandinka	13		
			21	Kunting	34		
Day 2 8/10/2016		Janjan-bureh	22	Mccarthy Island	66		*Night Stop in
		Fulladu West	23	Sapu	1		
			24	Sukar	4		
			25	Fass Abdou Sey	9		
			26	Madina Tiaf	15		
			27	Madina Umfally	37	*FGD Target	

Day 3 9/10/2016		Fulladu East	28	Jaka Ba	1		
			29	Keser Kunda	1		
			30	Manneh Kunda	2		
			31	Temantu Chedu / Sinchu Chedourel	1	*FGD Target	
			32	Mabali Kunda	3		
			33	Dobong Kunda	7		
			34	Jahanka	7		
			35	Bansang	44		
Day 3 9/10/2016	Basse	Jimara	36	Sarre Touray	1		Night Stop in Basse
			37	Tabanding Sare sacho	1		
			38	Demba Kunda Koto	4		
			39	Demba Kunda Kuta	12		
			40	Gambisara	34	*FGD Target	
			41	Numuyel	14		
Day 4 10/10/2016		Tumana	42	Kulkuleh	11		
			43	Perai	14	*FGD Target	
			44	Sare Alpha (Diabugu Alpha)	41		
Day 4 10/10/2016		Kantora	45	Suduwol	11		
			46	Garawol	42		
			47	Nyamanarr	13		
Day 5 10/10/2016		Sandu	48	Sare Pateh (Sanka Barry)	1		
			49	Jagajary	7		
			50	Misra	11	*FGD Target	
			51	Diabugu Batapa	47		
Day 6 11/10/2016		Wuli West	52	Sare Kolli (Janjan Kolli)	6	*FGD Target	
			53	Jar Kunda	22		
			54	Taibatu	38		
Day 6 11/10/2016		Wuli East	55	Sare Wuru	4		
			56	Bohoum Kunda	14		
			57	Soto Koba	48	*FGD Target	
Day 7 12/10/2016	LRR	Kiang West	58	Sankandi	15		
			59	Keneba	51	*FGD Target	

Day 7 12/10/2016	WCR	Foni Jarrol	60	Tamba Kunda	21	*FGD Target	
			61	Sintet Bako	45		
Day 7 12/10/2016		Foni Bondali	62	Taiba Nyassen (Njeleew)	25		
			63	Mayok	41	*FGD Target	
Day 7 12/10/2016		Foni Bintang	64	Tampo Koto	8		
			65	Kusamai	26		
			66	Kandouku	32		
Day 8 13/10/2016		Kombo East	67	Mandina Ba	23		Night Stop in Brikama
			68	Kafuta	43	*FGD Target	
Day 8 13/10/2016		Kombo South	69	Berending	9		
			70	Gunjur Kulkochi	11		
			71	Gunjur	84	*FGD Target	
			72	Tujerang	42		
			73	Tanjeh	83		
			74	Jambur	27		
			75	Sifoe	28		
			76	Jambangjelly	30		
			77	Sanyang	71		
Day 9 14/10/2016		Kombo Central	78	Naneto Siwon	3		
			79	Darsilameh	12		
			80	Penyem	6		
			81	Manduar	27		
			82	Nema Geebungoto	19	*FGD Target	
			83	Jalanbang	37		
			84	Kitty	22		
			85	Farato Bojang Kunda	34		
			86	Kembujeh	42		
			87	Jamisa	46		
			88	Brikama Gidda	55		
			89	Brikama Sanchaba	40		
			90	Brikama Wellingara	42		
			91	Banjulinding	7		
			92	Bijilo	9		
			93	Madiana	6		
			94	Brufut	27		

Day 9 14/10/16		Kombo North	95	Madinary	11		
			96	Yundum Koto	13		
			97	Nema Kunku	36		
			98	Sinchu Alagie	21	*FGD Target	
			99	Sinchu Sori	8		
			100	Kerr Serign Njaga	12		
			101	Mariama Kunda	3		
			102	Sanchaba	26		
			103	Lamin	30		
			104	Sukuta	59	*FGD Target	
			105	Kerewan	10		
			106	Wuling Kamma	4		
			107	Kunkujang Keitaya	25		
			108	Busumbala	30		
			109	Daranka	5		
			110	Brusubi	6		
			111	Jabang	5		
			112	Wellingara	29		
			113	Makumbaya	3		
Day 10 15/10/2016	KMC	Serekunda West	114	Dippakunda	24		
			115	Latrikunda German	27		
			116	Kololi	10		
			117	Manjai Kunda	25	*FGD Target	
			118	Kotu	23		
			119	Bakoteh	23		
Day 10 15/10/2016		Serekunda East	120	Fajikunda	52	*FGD Target	
			121	Latrikunda Sabiji	21		
			122	Tallinding	56		
			123	Abuko	22		
Day 10 15/10/2016		Serekunda Central	124	Serrekunda	27	*FGD Target	
			125	Bundung Kakunda	76		
Day 10 15/10/2016		Jeshwang	126	Kanifing	20		
			127	New Jeshwang	24		
			128	Old Jeshwang	10		
			129	Ebo Town	31	*FGD Target	

Day 10 15/10/2016		Bakau	130	Pipeline	6		
			131	Bakau New Town	34		
			132	Bakau Wassulung Kunda	5	*FGD Target	
Day 10 15/10/2016	BMC	Banjul	133	Banjul Central	115	*FGD Target	
			134	Banjul North	112	*FGD Target	
			135	Banjul South	82	*FGD Target	
				Total	**3300**		