# Challenges of Access to Ocular Healthcare Services in Owerri West LGA, Imo State, Nigeria

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#### **Abstract**

Visual impairment and blindness due to ocular diseases are significant public health problems in developing countries including Nigeria. Evidence suggests that lack of access to eye care services is a major barrier to attaining universal use of eye care services. This study was carried out was to identify the challenges of access to ocular healthcare in Owerri West LGA, Imo state, Nigeria via availability, accessibility, affordability and acceptability. A total of 188 subjects which comprised of 94 males and 94 females were used for this study. This study was carried out in 4 communities within Owerri West, namely; Umuchima, E:iobodo, Ihiagwa and Obin:e with the aid of a questionnaire comprising of the demographic data, ocular health history and other specific related questions assessing availability, accessibility, affordability and acceptability of eye care services for qualitative and quantitative analysis. Statistical results showed the mean values for each section to be 4.75 \ 2.22 for availability, -0.02 \ 0.11 for accessibility, 2.88 ł 2.28 for affordability, 3.34 ł 2.15 for acceptability. SPSS statistical analysis version 23 output using paired sample T-test at level of significance also revealed P (0.001)<0.05 for availability, P (0.704) >0.05 for accessibility, P (0.027)<0.05 for affordability and P (0.003)<0.05 for acceptability. Therefore eye care services are easily available, easily affordable and easily accepted in Owerri West but they are not easily accessible. The barriers identified that was responsible for the lack of access were limited numbers of eye care facilities, bad roads, delay in receiving treatment, lack of insurance services and poor awareness. In conclusion, by limiting access to eye care services, the prevalence of visual impairment and blindness is increased.

Keywords: Visual impairment; Blindness; Affordability; Demographic data; Accessibility

#### Introduction

Globally, though there is a reduction in overall prevalence of blindness and Visual Impairment (VI), the absolute number of those with blindness and visual impairment is still on rise. Since major causes such as cataract and Uncorrected Refractive Error (URE), chronic non-communicable diseases like glaucoma and diabetic retinopathy amongst others are still on the rise. Apart from this, issues related to accessibility and affordability still persist in major parts of developing countries. There are also concerns related to quality and equity in service delivery. In order to achieve goals of universal eye health coverage, strengthening primary eye care and integrating it with primary healthcare, secondary care, as well as tertiary care and the use of appropriate technology at each level of care are proposed. Visual impairment is a term mostly used to categorize people suffering from low vision and blindness. Most people with low vision problems reside in the rural communities. In most cases, they do not have access to adequate eye care facilities compared to these in urban areas either due to lack of availability, access and awareness as well as illiteracy [1]. It is a big public health problem that causes hindrances in all areas of life, especially to the quality of life of those affected. In Nigeria, the incidence of visual impairment is nearly 5%. It is estimated that 4.25 million adults aged 40 years are visually impaired with an additional 40,000 adults suffering from severe vision loss, therefore the negative impact of visual impairment and blindness cannot be overemphasized. Eye care service delivery models are organized programmes that are designed to provide or improve eye care services, ranging from nonspecialized primary healthcare to tertiary ophthalmic care.

Delivery models are used to ensure services can reach all people or to establish bespoke services to overcome existing barriers to access. In Australia, researchers attribute the worse eye health among Indigenous people to their reduced access to eye care particularly spectacles and

#### **Background of study**

**Healthcare system:** According to the World Health Organization. Health can be defined as a state of complete physical, mental and social wellbeing of an individual and not merely the absence of diseases or infirmity. Healthcare system is an organized plan, method or program of health services through which health care financed by the government, private institutions or both are made easily available and accessible to the people. Good health is a major resource for social and economic development as well as an important dimension of quality in the delivery of healthcare services worldwide [4].

Health promotion focuses on achieving equity and adequate resource and manpower distribution in the health system in order to enable people to remain or return to health in order to carry out their various tasks and responsibilities that contribute to the overall quota and growth of the country. In spite of the huge development in the health care within the past 10 years, much is still needed to be done in the healthcare system [5]. In Nigeria, current statistics shows that health institutions rendering health care are 33,303 general hospitals, 20,278 primary health centers and posts and 59 teaching hospital and federal medical centers. Healthcare in Nigeria is an underserved area despite its strategic, political and economic importance in Africa. This is because health facilities (health centers, personnel and medical facilities) are still not close to being enough to cater for the health of the ever growing population. The effects of poor healthcare are felt more in the rural areas where there are only little or no healthcare facilities to begin with.

For health programmes in the rural area in Nigeria to be very effective and self-sustainable, there is need to actively train, mobilize and cooperate with people living in the rural areas. This means that people living in those areas will have to contribute, cooperate and benefit from the planning and implementation of any health programme within that community. However, these health programmes are easily hindered by poor funding, lack of participation, lack of personnel, lack of self-sustainance and lack of cooperatives and other financial institutions set up to assist people in the rural area [6].

Quality healthcare can be defined as a process of consistently satisfying patients with effective and efficient healthcare service which includes 4 major characteristics, namely; availability, accessibility, affordability and acceptability as well as other characteristics like appropriateness, competency, timeliness, confidentiality, reliability, continuity, equity, amenities and facilities amongst others. All of these limitations if not addressed appropriately can affect the use of mi-ssM

then over stepping one's competence in treating or management eye conditions and drug prescriptions due to lack of satisfaction in the scope of eye care, or for an extra fee [10].

### Access to eye care services in the healthcare system

Blindness and visual impairment constitute a public health problem in Sub-Saharan African countries. In response to this, in 1999, the World Health Organization in collaboration with the international agency for the prevention of blindness came together, discussed and then launched the "VISION 2020-the right to sight" initiative for the elimination of avoidable blindness by the year 2020. They adopted a new strategy resolution in 2020 during the 73<sup>rd</sup> world health assembly on the effective use of the Integrated People centered Eye Care (IPEC) to help combat preventable blindness and visual impairment. This was resolved after the analysis and recommendations from its world report on vision in 2019 [11].

Accessing eye and health care services has been a major problem in most part of the world and when this access is denied quality of life reduces and there will be an increase in diseases which may not be prevented, diagnosed, treated or managed. Therefore, an assessment of the barriers to the use of eye care services is important for planning strategies to prevent blindness, since millions of people today are going blind because Ma&ss analanaba ar] ortmae oc

## Scope of study

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equipment. It was later concluded that an inadequate material resources and uneven distribution of health facilities there posed a challenge to the availability of eyecare service delivery to the people there.

#### Related studies on the accessibility to eye care services

Aghaji et al., conducted a study on the strengths, challenges and opportunities of implementing primary eye care in Nigeria. They reported that approximately 4.25 million adults are blind or visually impaired with over 80% of the blindness from avoidable causes and that "cataract" was the most common cause of blindness which is readily treatable by surgery and that "refractive error" was the most common cause of visual impairment which is readily treatable by spectacles. However, the Nigerian national blindness survey showed that half of all eyes that had cataract surgery had been couched (a traditional procedure for clearing the visual axis as a treatment of cataract) with poor visual outcomes and that <5% of those with refractive errors had spectacles. This was attributed to the lack of accessible eye care service together with a lack of awareness of where to seek eye care services from. This causes patients to remain visually impaired or to seek unorthodox treatment for eye conditions.

Balarabe, et al., conducted a cross sectional study on causes of blindness and barriers to rehabilitation services involving 202 blind beggars who consented to it in Sokoto North local government area, Sokoto state and after confirmation of the state of blindness from eye examinations. Questions were asked and the individual responses were recorded in the questionnaire under the appropriate section. They reported that out of those 202 blind beggars, the barriers, the beggars had not had quality eye care services was due to lack of accessibility as well as the fact that in majority, their parents and relatives (50.3%) refused to take them to eye centers to access eye care services, while in minority, in some cases, the eye care services was not available (25.2%).

consulting the ophthalmologist ranging from ignorance according to  $190\,$  people (

 $Z^2=3.8416$ .

P=Proportion of the total population 48.04%=0.4804.

q=1-p, q=1-0.4804=0.5196

D=Degree of accuracy desired=0.05.

According to O'Neill, the percentage of people living in rural areas in Nigeria in 2020 is 48.04%.

From Table 2, 15 males (15.96%) and 12 females (12.76%) fell 15 females (15.96%) fell within the age group of 46-55 and 4 males within the age group of 18-29, 9 males (9.57%) and 15 females 15.96%) fell within the age group of 30-45, 19 males (20.21%) and

(4.26%) and 5 females (5.23%) fell within the age group of 56-70.

| Male | Female                   |  |   |
|------|--------------------------|--|---|
| N    | %                        | N  | %   |
| 30   | 15.96                    | 24   | 12.76   |
| 18   | 9.57                     | 30   | 15.96   |
| 38   | 20.21                    | 30   | 15.96   |
| 8    | 4.26                     | 10   | 5.32  |
| 94   | 50.00                    | 94   | 50.00   |
|      | N<br>30<br>18<br>38<br>8 | N     %       30     15.96       18     9.57       38     20.21       8     4.26 | N     %       30     15.96       18     9.57       30     30       38     20.21       30     30       4.26     10 |

Note: N: Number of subjects for each gender within an age group, %: Percentage of subjects for each gender within the age group.

From Table 3 many of the subjects (81.91%) knew of eye clinics within Owerri West where they could go to in order to get their eyes checked, mostly from referral (56.38%). They prefer to visit other eye clinics outside Owerri West (82.98%). Only a minority suffer the issue

of delay (27.66%), which could cause them to go back home without being attended to (26.6%) with an exception in emergency cases (61.7%), even though there is usually enough workforce (68.09%) and case handling (87.23%).

| Questions   | Yes     |           | %                              |      | No       |    |    | %                  |
|---|---------|-----------|--------------------------------|------|----------|----|----|--------------------|
| A heave use aware of any eye care facility in Owerri West       | 154     | attf on â | <del>\$</del> 91 <sub>91</sub> | docy | 34       | at | 81 | 6 <del>12,9%</del> |
| Do you go for eye examinations and treatment within Owerri West | 6<br>38 |           | 2.02                           | е    | c<br>156 | С  |    | 82.98              |
| Do the doctors there attend to your needs as desired            | 164     |           | 87.23                          |      | 24       |    |    | 12.77              |

Do you have to wait a long tim t t there attend to

| Source   | N   | %     |  |
|--|-----|-------|--|
| Friends  | 80  | 51.95 |  |
| Media  | 32  | 20.78 |  |
| Family   | 42  | 27.27 |  |
| Doctor   | -   | -     |  |
| Total  | 154 | 100   |  |
| Note: N: Number of subjects for each gender within an age group; %: Percentage of subjects for each gender within the age group. |     |       |  |

**Table 4:** Awareness on eye care services.

From Table 5 the subjects knew of very few eye clinics around (64.94%) only knowing about the clinic that they go to for their eye them that they can visit for an eye checkup. With the majority checkups.

| Number  | N  | %     |  |  |
|---|--|-------|--|--|
| None  | -  | -     |  |  |
| One   | 50   | 64.94 |  |  |
| Two   | 27   | 35.06 |  |  |
| Three   | -  | -     |  |  |
| Many  | -  | -     |  |  |
| Total   | 77   | 100   |  |  |
| Note: N: Number of subjects for each gender within an | Note: N: Number of subjects for each gender within an age group; %: Percentage of subjects for each gender within the age group. |       |  |  |

**Table 5:** Estimate of eye care facilities.

From Table 6 many subjects preferred the service quality (57.69%) they received in some of the clinics that were not situated within Owerri West.

| Reason   | N   | %     |  |
|--|-----|-------|--|
| Quality  | 90  | 57.69 |  |
| Availability   | 34  | 21.80 |  |
| Access   | 20  | 12.82 |  |
| Cost   | 12  | 7.69  |  |
| Total  | 156 | 100   |  |
| Note: N: Number of subjects for each gender within an age group, %: Percentage of subjects for each gender within the age group. |     |       |  |

Table 6: Eye care services outside Owerri West.

From Table 7 most subjects preferred going to clinics situated within Owerri municipal for their routine eye checkups.

| Location         | N   | %     |                                      |             |
|------------------|-----|-------|--------------------------------------|-------------|
| Owerri North     | 34  | 21.8  |                                      |             |
| Owerri municipal | 90  | 57.69 |                                      |             |
| None             | 32  | 20.51 |                                      |             |
| Total            | 156 | 1008  | .Pa <b>gMptosa\$</b> 000 <b>aBle</b> | <b>#</b> ar |

| Are the roads leading to the eye-care facility trekkable or motorable?                          | 38 | 20.21 | 150 | 79.79 |
|---|----|-------|-----|-------|
| Are you able to transport yourself easily from your home to the eye center at your convenience? | 80 | 42.55 | 108 | 57.45 |
| Can you easily seek eye care services in that eye care facility despite the distance barrier?   | 68 | 36.17 | 120 | 63.83 |

| Are the fees for frames, lenses and general eye treatment affordable in the eye clinic?           |   | 78.72 | 40  | 21.28 |  |
|---|---|-------|-----|-------|--|
| Are you mandated to pay for optical goods and eye care services first before you are attended to? |   | 54.26 | 86  | 45.74 |  |
| Can you easily access eye care services in that eye facility despite the cost?                    |   | 77.66 | 42  | 22.34 |  |
| Will the costs involved cause you to preferably seek eye care services elsewhere?                 |   | 29.79 | 132 | 70.21 |  |
| Will cost reduction in eye care services make it easier for you to access it when it is needed?   |   | 92.55 | 14  | 7.45  |  |
| Do you have any form of health insurance that can cover the cost for eye care services?           |   | 10.64 | 178 | 89.36 |  |
| Note: N: Number of subjects; %  | Note: N: Number of subjects; %: Percentage of the number of subjects. |       |     |       |  |

 Table 14: Affordability of eye care services.

From Table 15 majority of the subjects (89.36%) stated that the eye care services were just slightly affordable.

| Cost  | N   | %     |  |
|---|-----|-------|--|
| Very affordable   | 10  | 5.32  |  |
| Slightly affordable   | 168 | 89.36 |  |
| Not affordable  | 10  | 5.32  |  |
| Total   | 188 | 100   |  |
| Note: N: Number of subjects; %: Percentage of the number of subjects. |     |       |  |

| NHIS   | 12 | 60.00 |
|--------|----|-------|
| EPO    | -  | -     |
| НМО    | -  | -     |
| POS    | -  | -     |
| Others | 8  | 40.00 |
| Total  | 20 | 100   |

 $\textbf{Note:} \ \textbf{N:} \ \textbf{Number of subjects;} \ \% \textbf{:} \ \textbf{Percentage of the number of subjects.}$ 

From Table 20 a minority of the subjects (62.5%) that still go over the counter or meet traditional healers attributed their reasons to the cost implications.

| Reason  | N  | %     |  |
|---|----|-------|--|
| Location  | 12 | 37.50 |  |
| Cost  | 20 | 62.50 |  |
| Diagnosis   | -  | -     |  |
| Accuracy  | -  | -     |  |
| Total   | 32 | 100   |  |
| Note: N: Number of subjects; %: Percentage of the number of subjects. |    |       |  |

**Table 20:** Eye care services over the counter.

From Table 21 majority of the subjects usually do not feel bothered (84.04%) about people who wear glasses or have an eye issue.

| Mindset   | N   | %     |
|---|-----|-------|
| Concerned   | 16  | 8.51  |
| Not concerned   | 158 | 84.04 |
| Unconcerned   | 14  | 7.45  |
| Total   | 188 | 100   |
| Note: N: Number of subjects; %: Percentage of the number of subjects. |     |       |

Note: N: Number of subjects; %: Percentage of the number of subjects.

 Table 23: Reason for lack of satisfaction.

| Variables                       | P-value |
|---------------------------------|---------|
| Affordability-non-affordability | 0.027   |

• Comprehensive eye