

GLAUCOMA IN NIGERIA: **POLICY BRIEF**

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ABBREVIATIONS

AAO American Academy of Ophthalmology

CFRN Constitution of the Federal Republic of Nigeria

CSOs Civil Society Organisations
EHSA Eye Health System Assessment

FEC Federal Executive Council

GAP Global Action Plan

IAPB International Agency for the Prevention of Blindness

LFN Laws of the Federation of Nigeria

NEHP National Eye Health Policy

NEHP National Eye Health Programme

NHIAA National Health Insurance Authority Act
NHISA National Health Insurance Scheme Act

NPHCDA National Primary Health Care Development Agency

NSHDP National Strategic Health Development Plan

PHC Primary Health Care

PHCUOR Primary Health Care Under One Roof

POAG Primary Open Angle Glaucoma SEHC State Eye Health Committee

UNCRPD United Nations Convention on the Rights of Persons with Disabilities

WHA World Health Assembly
WHO World Health Organisation



OVERVIEW

Glaucoma is the primary cause irreversible blindness globally.[1] Besides cataracts, it is the second leading cause of vision loss and vision impairment. In Nigeria, about 1.1 – 1.4 million adults aged 40 years and above suffer from glaucoma. [2] Amongst the ethnic groups in Nigeria, the Igbo of South-East Nigeria have the highest prevalence of glaucoma which may be a result of genetic susceptibility.[3] A significant number of persons are unaware of or heard of glaucoma.[4] These persons do not know the danger inherent in glaucoma as regards vision impairment or irreversible vision when hereditary nature, and that a person could have glaucoma without being aware of it, In Nigeria, primary open-angle glaucoma (POAG) is the most common type of glaucoma.[5]



Glaucoma is the primary cause of irreversible blindness globally

POAG is asymptomatic in the early stages, hence timely diagnosis is of prime importance to avoid serious vision loss. This entails public awareness and the practice of regular eye examinations for case diagnosis. [6] Some of the risk factors for glaucoma include age (over 40 years), eye injury or surgery, poor eyesight (myopia or far-sighted), other health conditions (diabetes, high blood pressure, heart disease, sickle anaemia, thin corneas, etc), black race, family history, etc. [7] Some of the features of glaucoma are:

- Painless: Glaucoma is asymptomatic in the early stages. Thus, there is no warning sign that something is wrong with the eye as no hurt is felt;
- Progressive: Persons with glaucoma are oftentimes unaware of any vision loss, hence they wrongly assumed that their eyesight is good. Sight loss with regard to persons with glaucoma is gradual and progressive;
- Irreversible: Vision loss as a result of glaucoma is permanent. No amount of medication, surgery, and treatment can restore the vision loss;[8]
- Incurable: No cure has been found yet for glaucoma as of June 2023, hence early detection is the initial step to protecting against vision impairment or loss.[9]

It is worthy of note that treatment for glaucoma does not, even with surgery,[10] improve, restore, or reverse the damage (vision loss) that already exists but it is geared towards mitigating damage to the eye at issue.[11] However, treatment will help in the preservation of the current state of vision, thereby forestalling further loss.[12] This underscores the reasons behind the call advocacy regards as raising awareness of the inherent dangers of glaucoma to humanity. Consequently, screening for glaucoma even at an early age would be a much-needed panacea to arrest the 'silent thief of sight'.



FEATURES OF GLAUCOMA

Features	Symptoms
Painless	Glaucoma is asymptomatic in the early stages. Thus, there is no warning sign that something is wrong with the eye as no hurt is felt.
Progressive	Persons with glaucoma are oftentimes unaware of any vision loss, hence they wrongly assumed that their eyesight is good. Sight loss with regard to persons with glaucoma is gradual and progressive.
Irreversible	Vision loss as a result of glaucoma is permanent. No amount of medication, surgery, and treatment can restore the vision loss.
Incurable	No cure has been found yet for glaucoma as of June 2023, hence early detection is the initial step to protecting against vision impairment or loss.



CHALLENGES IN THE MANAGEMENT OF GLAUCOMA IN NIGERIA

There are a number of challenges in the management of glaucoma in Nigeria. These challenges are diverse. For example, lack or low level of knowledge. This has significantly impacted the people negatively, leading to vision impairment or blindness. Thus, there is a need for improved public awareness of the danger of glaucoma for early detection and treatment to avoid vision impairment or loss. thereby avoiding irreversible blindness due to glaucoma. It is instructive to note that a low level of knowledge is not peculiar to the populace alone but also to all eye care providers. In the case of eye care providers, including ophthalmologists, there exists a knowledge gap with regard to diagnosis, especially in secondary and levels health tertiary of care. Consequently, large number а of ophthalmologists in third-world countries, including Nigeria have continued to diagnose glaucoma using only intraocular pressure, and this procedure has led to so many false positives and false negatives results which further compound the conditions of glaucoma sufferers.[13] This challenge makes human resources for eye health imperative, particularly in the area of training eye care providers as regards diagnosis and thorough eye care examination when people present themselves for screening.

Screening is another challenge. This involves the diagnosis (examinations and tests) to detect glaucoma. This occurs after a person becomes aware of glaucoma. The discovery of glaucoma at an early stage through screening could create a greater chance of treating it. Every individual is at the peril of glaucoma, hence the greatest way to protect a person's eyesight from vision impairment or loss

caused by glaucoma is to be screened so as to commence treatment immediately. Therefore, a timely diagnosis by way of a thorough examination and ensuing treatment is of prime importance to protect against further vision impairment or loss.[14] Screening is key and as such requires adequate attention at all levels of health care.

Finance is a crucial factor in accessing eye care services for persons with glaucoma. Poverty is rife in Nigeria. According to a World Bank report in 2022, four out of ten Nigerians live below the national poverty line which is largely due to a dearth of productive jobs, low growth, etc.[15] The Nigerian Bureau of Statistics (NBS) in a report in 2022 stated that 63% of persons living in Nigeria (about 133 million persons) are multidimensionally poor.[16] The living standard is extremely low and this is telling on the people. The likelihood of impoverished families having vision impairment or going completely blind as a result of glaucoma is four times higher compared to those from wealthy homes. [17]Thus, even with the knowledge of glaucoma and screening, accessible and affordable eye care services remain elusive due to financial incapability and this ultimately results in the poor becoming glaucoma blind.

There is a paucity of human resources for health with regard to eye health in Nigeria. Nigeria has about 700 ophthalmologists for over 200 million persons.[18] These numbers fall short of the WHO recommendation of 1 ophthalmologist to 50,000 persons in developing nations.[19] The paucity of ophthalmologists makes eye care inaccessible to persons with glaucoma even when they present



themselves for screening and treatment. Apart from the shortage ophthalmologists, most of them are in the urban areas and this poses a great challenge for people in the rural areas who have to travel to the cities to access eye care. A large number of these persons cannot travel to the cities due to lack of means of transportation.[20] Furthermore, the deplorable state of our communities prevents ophthalmologists from working in rural areas.[21]

Apart from the dearth of ophthalmologists, there also exists the challenge of inadequate and up-to-date medical equipment for screening, diagnosis, and management of glaucoma, especially at the PHC level. Even where the equipment is available, lack of maintenance results in their frequent breakdown, and even when fixed cannot function optimally;[22] hence the result that is usually produced from the screening and diagnosis might not be accurate in detecting the actual state of the individual vision.

Faulty or malfunctioned equipment sometimes takes time to be fixed. This negatively impacts the persons who come for diagnosis as they are asked to wait pending the fixing of the equipment. At the time of waiting, more damage is being done to the eye.

Timely referral is a huge problem is also a challenge. In the interviews conducted by a group of ophthalmologists at a centre rendering medical and surgical glaucoma services in Lagos, Nigeria in 2015, findings reveal that not referring patients on time to ophthalmologist for thorough examination was the reason for not presenting themselves on time.[23] A large number of these patients are under the management of optometrists, who rather than refer them to an ophthalmologist, even after showing some symptoms such as presbyopic prescribe glasses for them to manage their condition. The foregoing shows the complexities in the management of glaucoma disease as a public health issue.



POLICY AND LEGAL FRAMEWORK ON EYE DISABILITY – GLAUCOMA

3.1 Policy Framework3.11 National Eye Health Policy

Nigeria accepted the Constitution of the WHO on 25 November 1960, thus becoming a member of the organisation. [24] The WHO over the years has come up with a number of resolutions, policies, and action plans on health such as World Health Assembly (WHA) resolution WHA 66-4 of 2013, Universal Eye Health: A Global Action Plan (GAP) 2014-2019, Vision 2020 (the right to sight launched in 1999 by WHO and the International Agency for the Prevention of Blindness (IAPB)), etc. [25] These are geared towards ensuring that all persons have unconstrained access to first-rate quality eye care with the assurance that paying for it would not result in their impoverishment.[26] For example, Vision 2020 - the right to sight, is primarily aimed at "[a] world in which nobody is needlessly visually impaired, where those with unavoidable vision loss can [still] achieve their full potential".[27] Universal eye health is designed to ensure the availability of eye health to all persons which is not the case presently.

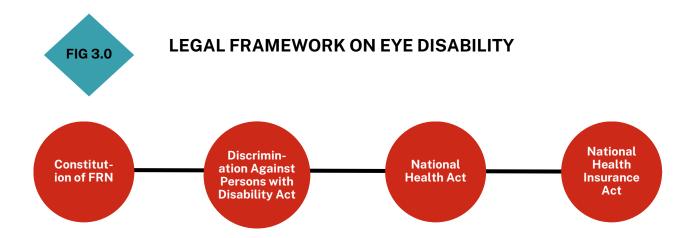
The National Eye Health Policy (NEHP), 2019 is the first comprehensive eye health policy nationally. NEHP is principally aimed at ensuring that persons with vision have equitable impairment and unrestrained access to standard quality eye care services. The NEHP was formally launched by the Federal Government in February 2022 after its adoption by the 36 states and Federal Capital Territory (FCT) at the 64th meeting of the National Council on Health.[28] The NEPH was greatly influenced by the above WHO resolutions and policies on eye health.

Prior to NEHP, there have been several health policies that touch on eye health in Nigeria. For instance, the National Health Policy of 2016 champions the embodying of eye care services into current national health programmes such as the Primary Health Care (PHC), whilst the National Health Strategic Plan advocates for the development of eye health policy that would champion the integration of eye care into Primary Health Care in Nigeria.[29] There is also the National Strategic Health Development Plan (NSHDP) 2018-2022 which advocates the inclusion of eye care as an integral part of the basic noncommunicable disease at the primary level of health care and the National Primary Health Care Development Agency (NPHCDA): Integrating PHC Governance in Nigeria: PHC Under One Roof (PHCUOR) 2016 that advocates for the provision of primary eye care to lower preventable loss of vision in Nigeria.[30] Furthermore, the National Strategic Health Development Plan (NSHDP II) 2018 calls for the promotion of eye care services as a priority in Nigeria.[31]

The NEHP is preoccupied with the determination towards achieving universal health coverage (UHC) for eye care.



The National Eye Health
Policy is the first national
comprehensive eye health
policy



To that end, NEHP is aimed "towards [the] elimination of avoidable blindness and visual impairment, reduce the burden of eye disease in Nigeria [as well as] mitigate the social and economic impact".[32] The impact of glaucoma on the poor is higher than on the rich. The provisions of NEHP are designed to close these gaps by ensuring that there is access to improved eye health services for persons with glaucoma with equity, fairness, and justice. [33]

The NEHP covers all categories of glaucoma.[34] The NEHP is concerned with strengthening healthcare facilities. engaging in the training of human resources for eye health, and supporting the acquisition of appropriate medical equipment and technology for eye health in order to provide comprehensive glaucoma services through screening and treatment of persons with glaucoma.[35] To achieve UEH, the NEHP provides that Primary Eye Care (PEC) shall be prioritised and PHC facilities shall be adequately equipped, and properly supervised to ensure the delivery of eye health services.[36]

3.2 Legal Framework

3.2.1 The Constitution Federal Republic of Nigeria

Section 17(3)(d) of the Constitution Federal Republic of Nigeria (CFRN) 1999 (as amended) states that "[t]he State shall direct its policy towards ensuring that there are adequate medical and health facilities for all persons in Nigeria. By this provision, the government is mandated to provide adequate and first-rate medical and health facilities for its citizens to have good health, including persons with glaucoma conditions.

The foregoing is what the NEHP is determined to achieve. Although the ouster clause provisions of section 6(6)(c) make Chapter II non-justiciable. Section 34 essentially provides for the dignity of human persons. This provision covers people with disabilities, including persons with glaucoma. Section 42(1)(a) prohibits discrimination, deprivation, and restriction on the basis of disability. These provisions are geared towards persons suffering from glaucoma having unrestrained access to the best medical facilities and treatment in dignified manner devoid discrimination, deprivation, or restriction.

3.2.2 The Discrimination Against Persons with Disability (Prohibition) Act

Nigeria is also a party to the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) and the Optional Protocol. Nigeria ratified both instruments in 2007 and 2010 respectively.[37] The provisions of **UNCRP** have been incorporated into the Discrimination **Against** Persons with Disabilities (Prohibition) Act 2018.

Prior the enactment of the Discrimination Against Persons with Disabilities (Prohibition) Act 2018, about seven states had enacted disability laws, for instance, the Lagos State Special Peoples' Act, 2010.[38] As of December 2022, only 19 states had legislation on disability.[39] Although Nigeria enacted the disability law at the national level as well as in aforesaid states in line with article 4 of the UNCRPD which enjoined States Parties to promote the full realisation of the human rights and fundamental freedoms of people with disabilities without any discrimination whatsoever on the basis of disability; and to implement same with the adoption of legislative, administrative and other measures to that effect.

The Disability Act describes "persons with disabilities to include those who have long-term physical, mental, intellectual or sensory impairments which in interactions with various barriers may hinder their full and effective participation in society on an equal basis with others".[40]

The Disability Act further provides that "[a] person with disability shall not be discriminated against on the ground of his/[her] disability by any person or institution in any manner or circumstance". [41] This provision in conjunction with section 42(1)(a) of the CFRN,99 (as amended) protects every person with glaucoma – vision impairment loss or blindness from discrimination.

The Disability Act 2018 provides for a number of rights for persons with disabilities, including glaucoma. Notwithstanding the nature of the disability of a glaucoma patient, they are entitled to a free and unrestrained right to education, especially to the secondary school level devoid of any discrimination or segregation whatsoever.[42]

Additionally, a person with a glaucoma disability shall be provided with assistive devices they require for their education. [43] Furthermore, all public schools from primary to tertiary levels shall run inclusive and accessible programmes that take into consideration persons with glaucoma to ensure they receive the best education.[44] To that end, every public primary, secondary and tertiary institution shall provide trained personnel, and special facilities for the educational development and effective education of persons with glaucoma; and as such braille, sign language, and other special skills for communication must form part of the these institutions.[45] curriculum of Concerning children with glaucoma, it behoves the government to ensure that their education is delivered in the best language, mode. and means of communication in a conducive environment that would enhance their academic and social development.[46] The Disability Act also mandates the government to provide free and unrestrained adequate health care persons with disabilities without discrimination on the basis of their condition.[47] By this provision, the government is to ensure that glaucoma sufferers have access to free health care. This entails equipping and upgrading, especially the PHCs to provide for screening, diagnosis, and treatment. The CFRN and the UNCRPD provide for the inherent right to life.[48] This right cannot be guaranteed where there are no improved and adequate eye care services for the screening, diagnosis, treatment, and prevention of glaucoma in terms of THE PROVISION of first-rate eye health facilities and trained medical personnel, including ophthalmologists. Thus, the promotion and protection of persons with glaucoma to ensure the full enjoyment of human rights and fundamental freedoms which is the sole purpose of UNCRPD cannot be realised if the foregoing are not prioritised and provided.

3.2.3 The National Health Act

The National Health Act 2014 establishes the National Health System to "provide for persons living in Nigeria the best possible health services within the limits of available resources".[49] The National Health System is also to "protect, promote and fulfil the rights of the people of Nigeria to have access to health care services; [and to ensure that] all Nigerians [are] entitled to the basic minimum package of health services." [50] The National Health System comprises the Federal Ministry of Health, the States' Ministry of Health, the Department responsible for health in FCT, and other key stakeholders.[51] Finance being a constraint to accessing health care services, section 3 of the National Health Act allows the Minister of Health in consultation with the Council on Health prescribe conditions upon which some persons may be eligible for exemption from payment of health care services in public hospitals.

Since 2014 to date when the Act was enacted, the minister is yet to make such prescriptions. In making the prescriptions, the minister is to consider a number of persons, including those with disability (this include persons with glaucoma). This exemption is aimed at enabling persons with glaucoma to access eye care at the primary, secondary, and tertiary levels, thereby reducing significantly out-ofpocket spending. The National Health Act established the Basic Health Care Provision Fund (BHCPF) under section 11 as an intervention fund with a mandate to fund the Basic Minimum Package of Health Services (BMHS) of all Nigerians by reducing out-of-pocket spending at least by thirty percent in five years, thereby taking care of the financial risk of Nigerians by way of health insurance.

PHC is the level where persons with glaucoma, especially those in rural areas can access eye care services such as screening, and diagnosis. The rationale behind the National Health Act allocation of a better part of the Basic Health Care Provision Fund for PHC whereby 20% goes to the provision of essential drugs, vaccines, and consumables for eligible PHC facilities. 15% for the provision, maintenance of facilities, equipment, and transport for eligible PHC facilities, and 10% for the development of human resources PHC is to ensure that PHCs function optimally.[52] The provisions and maintenance of facilities and equipment would help immensely in the area of screening whilst the drugs and vaccines as well as the development of human resources would significantly help in the treatment of glaucoma.

Notwithstanding the foregoing provisions, 50% of the Basic Health Care Provision Fund shall be utilised for the provision of the basic minimum package of health to all Nigerians in eligible primary or secondary health care facilities through the National Health Insurance Scheme.[53] The guidelines for the administration. disbursement, and monitoring as regards the BHCPF provide for primary eye care at the PHC level. The basic eye care services available at this level are basic examination and visual acuity, conjunctivitis, parasitic and allergic ailments, and simple contusion, abrasions, etc.[54] Although glaucoma is not expressly listed, research has shown that an issue with visual acuity (sharpness of vision) can be a result of glaucoma.[55] Glaucoma reduces visual acuity.[56] Studies have further shown that parasitic infection can damage the drainage system of the eye which can cause pressure to develop in the eye resulting in glaucoma.[57]

Research has also shown that persons with diabetes and hypertension are at a higher risk of developing POAG.[58] Persons, particularly those in rural communities having issues of blurred vision can leverage on this provision to go for screening and diagnosis to detect, cure prevent glaucoma. Under secondary health care level, the eye amongst others is listed under laboratory investigation.[59] This implies that persons with glaucoma disability will have access to laboratory testing to ascertain the level of glaucoma disability and the kind of eye treatment they require.

The foregoing has shown that the core objective of the National Health Act is to ensure that every Nigerian has access to a basic minimum package of health care services, including eye care services with regard to persons with glaucoma disability. However, much has not been done in the implementation of the Act almost 10 years after its enactment. One of the greatest challenges in the implementation of the Act lies in the phrase "within the limits of available resources" in section 1(1)(c). This phrase is the bane of the implementation of the Act and also the provisions of 17(3)(e) of the CFRN, as the government continually maintained its inability to carry out its obligations in respect of the provisions of the Act, due to the non-availability of resources even though the Act establishes the Basic Health Care Provision Fund to fund the implementation of the Act.[60]

3.2.4 The National Health Insurance Authority Act

The National Health Insurance Authority Act (NHIAA) 2021 was signed into law in May 2022. The NHIAA established the National Health Insurance Authority to oversee the implementation of the Act. The NHIAA repealed the National Health Insurance Scheme Act (NHISA), which had hitherto governed health insurance in Nigeria.[61] One of the core objectives of the Authority is doing any act that would assist it in achieving UHC for all Nigerians. [62] The Authority is mandated to "ensure that health insurance is mandatory for every Nigerian and legal resident".[63] To achieve the above, the Authority is to "ensure the implementation and utilisation of the Basic Health Care Provision Fund under the National Health Act".[64]

Where every Nigerian is captured by the health insurance scheme, it would address the issue of lack of funds to access health care, thereby making health care services available and accessible to all persons, including persons with glaucoma. The NHIAA has the responsibility of implementing BHCPF[65] the accordance with the guidelines developed for that purpose.[66] At the signing into law of the NHIAA, former President, Muhammadu Buhari stated that a fund would be established "to ensure coverage of 83 million poor Nigerians who cannot afford to pay premiums as recommended by the Lancet Nigeria Commission".[67] The provision of this fund would facilitate the screening, and diagnosis and also reduce out-of-pocket spending of vulnerable persons such as those with glaucoma in accessing eye care services.



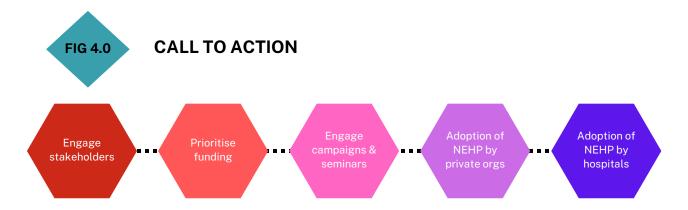
The NEHP is preoccupied with the determination towards achieving universal health coverage (UHC) for eye care.

Section 25 of the NHIAA provides for the "Vulnerable Group Fund" whose principal object is subsidising health insurance coverage for people in Nigeria and the payment of health insurance premiums for the indigents. There is no doubt that the establishment of this fund immensely address a large number of persons with glaucoma disability in Nigeria who are vulnerable [68] and indigent to access eye care services. The sources of the fund include BHCPF, health insurance levy, telecommunication tax. monev allocated to the fund by the government, grants, donations, etc.[69] To ensure that finance does not continue to be a constraint to access to eye care services by people with glaucoma, especially those from poor backgrounds, the National Health Insurance Authority Act is to finance their eye care services.[70] The main import of the National Health Insurance Authority Act is to provide health insurance for all Nigerians.[71]

4.0 Gaps in Policy and Legal Framework

Although the NEHP and the CFRN as well as other legislation examined above have laudable provisions as regards achieving UEH which is a component of UHC, gaps still exist that have made it difficult for their full implementation. The following gaps have been identified:

- Eye health is not included in the Guidelines for the Development of Primary Health Care in Nigeria even though the NEHP provides that government will ensure the promotion of first-rate quality eye health services at all levels – primary, secondary, and tertiary whereas there is the inclusion of maternal and oral health;
- Eye care is not included at the secondary level in the Guidelines for the Administration, Disbursement, and Monitoring of the Basic Health Care Provision Fund
- The non-justiciability of Chapter II, especially section 17(3)(e) of the CFRN makes access to UEH difficult for persons suffering from glaucoma disability;
- The phrase "within the limits of available resources" in section 1(1)(c) allows the government at all levels to continually make excuses for their failure to implement the National Health Act as a result of insufficient funds.



5.0 What Next?

- The Minister of Health in consultation with the Council on Health makes the prescriptions for exemption from payment for health care services at the public hospitals with regard to vulnerable such as those with glaucoma as this has been long overdue;
- · Screening should be prioritised;
- There is a need to include eye health in the PHC to promote the best quality eye health services to achieve UEH;
- There is also a need to include eye care at the secondary level in the Guidelines for the Administration, Disbursement, and Monitoring of the Basic Health CareProvision Fund;
- Section 17(3)(e) of the CFRN and the phrase "within the limits of available resources" in section 1(1)(c) of the National Health Act should be reviewed and the necessary amendment effected to ensure adequate funding of UEH;
- There should be strict monitoring of the disbursement of the Basic Health Care Provision Fund to ensure that the funds are not diverted to the wrong channels or misappropriated;

6.0 Call to Action

This entails:

- Engage stakeholders on the implementation of the NEHP and various connected legislation to attain UEH
- Prioritise funding
- Engage in campaigns and seminars through jingles, handbills, etc.
- Building the capacity of service providers
- Adoption of NEHP and the provisions of the National Health Act by private organisations in the treatment of personnel suffering from vision or impairment due to glaucoma disability
- Adoption of NEHP and the provisions of the National Health Act by hospitals and other health facilities in the treatment of persons with glaucoma disability in their facilities

[1] Centres for Disease Control and Prevention (CDC), "Don't Let Glaucoma Steal Your Sight!" https://www.cdc.gov/visionhealth/resources/features/glaucoma-awareness.html. See also CDC, "Common Eye Disorder and Disease," https://www.cdc.gov/visionhealth/basics/ced/index.html; Nkiru Kizor-Akaraiwe,

"Glaucoma blindness in Africa," The International Agency for the Prevention of Blindness, March 10, 2021, https://www.iapb.org/blog/glaucoma-blindness-in-africa/

- [2] Fatima Kyari, et al "A Population-based survey of the prevalence and types of glaucoma in Nigeria: result from the Nigeriia National Blindness and Visual Impairment Survey," BMC Ophthalmology 15 (176), (2015), DOI 10.1186/s12886-015-0160-6. See also London School of Hygiene and Tropical Medicine, "The Nigeria National Blindness and Visual Impairment Survey-2007" https://iceh.lshtm.ac.uk/files/2014/04/NigeriaSurvey.pdf
- [3] Fatima Kyari, et al "Ethnicity and Deprivation are Associated With Blindness Among Adults With Primary Glaucoma in Nigeria: Results From the Nigeria National Blindness and Visual Impairment Survey" Journal of Glaucoma Vol. 25 No. 10 (2016): 862
- [4] S. N.Nwosu, "Patients' knowledge of glaucoma and treatment options" Niger. J. Clin. Pract. 13, 74–77 (2010); L. O.Onyekwe, M. C.Okosa, and A. I.Apakama, "Knowledge and attitude of eye hospital patients towards Chronic Open Angle Glaucoma in Onitsha" Niger. Med. J. 50, 1–3 (2009) in C. Mbadugha, and A. Onakoya, "The awareness, perceptions and experiences of primary open-angle glaucoma patients in Lagos Nigeria," Scientific Report 4, 7585 (2014) https://doi.org/10.1038/srep07585
- [5] Fatima Kyari, et al "A Population-based survey of the prevalence and types of glaucoma in Nigeria: result from the Nigeriia National Blindness and Visual Impairment Survey," BMC Ophthalmology 15 (176), (2015), DOI 10.1186/s12886-015-0160-6.
- [6] C. Mbadugha, and A. Onakoya, "The awareness, perceptions and experiences of primary open-angle glaucoma patients in Lagos Nigeria," Scientific Report 4, 7585 (2014) https://doi.org/10.1038/srep07585
- [7] Community Medical Centers, https://www.mayoclinic.org/diseases-conditions/glaucoma/symptoms-causes/syc-203728398
- [8] NVISION "Is There a 'Cure' for Glaucoma?" (Modern Treatment Options)

 Monthly / Annual reports are widely used by companies for documenting projects, cash flow and finances, employee performance, marketing strategies, social media strategies, and a lot more. Reports provide detailed descriptions of a company's progress whether it's just for a particular month or the entire year. Aside from texts, reports are best filled with charts, graphs and tables to present accompanying numerical data in a clear and easy-to-read manner. Create stunning reports by identifying the pertinent information you want to share with your colleagues. Begin your presentation with a cover page that briefly introduces what the report is all about. See also Robert N. Weinreb, "Glaucoma Worldwide: A Growing Concern," Glaucoma Research Foundation March 23, 2022 https://glaucoma.org/glaucoma-worldwide-a-growing-concern/

[9] "Health Days 2023: World Glaucoma Week," https://www.moh.gov.sa/en/HealthAwareness/healthDay/2023/Pages/HealthDay-2023-03-08-14.aspx

[10] Thomas V. Johnson, "Glaucoma Surgery Recovery: What You Need to Know," Johns Hopkins Medicine, https://www.hopkinsmedicine.org/health/wellness-and-prevention/glaucoma-surgery-recovery-what-you-need-to- know. This explains why surgeons oftentimes are reluctant to perform surgery on the patient as a result of some complications that might come out of it such as no improvement after surgery and in the worst scenario, the vision might disappear altogether resulting in complete blindness. See generally Bola Adekoya, et al "Challenges in the management of glaucoma in a developing country (n83)

[11] Ibid

[12] Ibid

[13] James E. Standefer, "Challenges in Glaucoma Management in Developing Countries – Is Vision 2020 ready for Glaucoma?" Nigerian Journal of Ophthalmology 18(1) (2010): 1-2

[14] Robert N. Weinreb, "Glaucoma Worldwide: A Growing Concern," Glaucoma Research Foundation March 23, 2022 https://glaucoma.org/glaucoma-worldwide-a-growing-concern/

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[19] WHO, "Strategic Plan for Vision 2020: The Right to Sight: Elimination of Avoidable Blindness in the Southeast Asia Region," WHO Project: ICP OSD 002

https://apps.who.int/iris/bitstream/handle/10665/205924/B1467.pdf?sequence=1&isAllowed=y. See Also Kehinde Fasasi Mosundi, Dupe S. Ademola-Popoola, and Abayomi Ayodapo, "Ophthalmology in Nigeria: Challenges and Successes," Nigerian Journal of Ophthalmology 27(2): 100 (2019) http://dx.doi.org/10.4103/njo.njo_14_18

[20] Ibid

[21] Ibid

[22] Bola Adekoya, et al "Challenges in the management of glaucoma in a developing country: A qualitative study of providers' perspectives," Nigeria Journal of Medicine (2015): 315-322

[23] Ibid

[24] UN, "Constitution of the World Health Organisation," Open Journal of Ophthalmology (2019): 18-27 http://www.scirp.org/journal/ojoph

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[25] International Agency for the Prevention of Blindness, "Vision 2020," https://www.iapb.org/about/history/vision- 2020/

[26] Elmien Wolvaadt Ellison, "Universal eye health: increasing access for the poorest," Community Eye Health Journal, Vol. 26(83), (2013) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3864066/

[27] IAPB, "Vision 2020," https://www.iapb.org/about/history/vision-2020/

[28] Deborah Tolu-Kolawole, "FG launches first national health policy"

[29] Ada Aghaji and Clare Gilbert, "Policies for primary eye health care in Nigeria: a case study" Journal of Community Eye Health Vol. 34(113), 2021

[30] Ibid

[31] National Eye Health Policy: Universal Eye Care Services Towards Universal Health Coverage 2019

[32] Ibid

[33] National Eye Health Policy (n25)

[34] Ibid @14

[35] Ibid

[36] Ibid @22

[37] Anietie Ewang, "Nigeria Passes Disability Rights Law," Human Rights Watch, January 25, 2019, 3 https://www.hrw.org/news/2019/01/25/nigeria-passes-disability-rights-law

[38] kolawole O. Ogunbiyi, "Citizens with disabilities and the rest of us," The Cable, February 7, 2023, https://www.thecable.ng/citizens-with-disabilities-and-the-rest-of-us

[39] These are: Kogi, Kwara, Nasarawa, Niger, Plateau, Bauchi, Jigawa, Kaduna, Kano, Sokoto, Zamfara, Abia, Anambra, Cross River, Edo Ekiti, Lagos, Ondo, and Oyo. See Oluwatobi Aworinde, "CCD Urges FG, 17 StatesTo Recognise Persons With Disability," Channels Tv, December 3, 2022,

https://www.channelstv.com/2022/12/03/ccd-urges-fg-17-states-to-recognise-persons-with-disabilities/

- [40] Disability Act, section 57.
- [41] Section 1(1)
- [42] Disability Act, section 17(1&2)
- [43] Section 17(3)
- [44] Section 18(1)
- [45] Section 18(1)(a)(b) and (2)
- [46] Section 20
- [47] Section 21
- [48] CFRN'99 (as amended), section 33 UNCRPD article 10.
- 49] National Health Act 2014 section 1(1)(c)
- [50] Ibid sections 1(e) and 3(3)
- [51] Ibid section 1(2)
- [52] Ibid section 11(3)(b-d)
- [53] Section 11(3)(a)
- [54] The Guidelines for the Administration, Disbursement and Monitori of the Basic Health Care Provision Fund, 2020, para. 4.14.1(4)
- [55] Yukihisa Suzuki and Motohiro Kiyosawa, "Visual Acuity in Glaucomatous Eyes Correlates Better with Visual Field Parameters than with OCT Parameters," Curr Eye Res. 46(11) (2021): 1717-1723. doi: 10.1080/02713683.2021.1924384. Epub 2021

[56] Sang-Yeob Kim, et al "Visual Acuity Outcomes in Diseases Associated with Reduced Visual Acuity: An Analysis of the National Health Insurance Service Database in Korea," International Journal of Environmental Research and Public Health (National Library of Medicine) 19(14) (2022) https://doi.org/10.3390%2Fijerph19148689

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[59] The Guidelines for the Administration, Disbursement and Monitori of the Basic Health Care Provision Fund (n55) para. 4.14.2(10)

- [60] Section 11
- [61] NATIONAL Health Insurance Scheme Act, Cap 42, Laws of the Federation of Nigeria, 2004
- [62] National Health Insurance Authority Act 2021 section 2(c)
- [63] Ibid section 3(b)
- [64] Ibid section 3(e)
- [65] Ibid section 24(2)
- [66] See note 58 for the guidelines.
- [67] Press Release "In Bid to Achieve Universal Coverage, President Buhari Signs National Health Authority Bill Into Law: 83 Million Poor Nigerians to Enjoy Coverage," May 19, 2022 https://statehouse.gov.ng/news/in-bid-to-achieve-universal-coverage-president-buhari-signs-national-health-authority-bill-into-law/. For Lancet Nigeria Commission Recommendation, see The Lancet Nigeria Commission, "[I]nvesting in health and the future of the nation" https://www.thelancet.com/article/S0140-6736(21)02488-0/fulltext
- [68] These include children under five, pregnant women, the aged, physically and mentally challenged. See section 59 of the NHIAA.

[69] National Health Insurance Authority Act 2021 section 26(1)(a-f)

[70] NEHP (2019): 10-11

[71] National Health Insurance Act, 2021 section 3(b)



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