



FEDERAL MINISTRY  
OF HEALTH &  
SOCIAL WELFARE

# NATIONAL EYE HEALTH STRATEGIC DEVELOPMENT PLAN (2024-2028)

UNIVERSAL EYE CARE SERVICES TOWARDS UNIVERSAL HEALTH COVERAGE



# Foreword

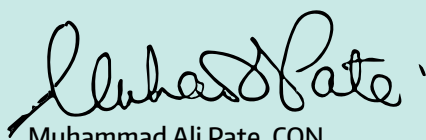
Advancing universal health coverage (UHC) through the provision of comprehensive eye care services to all and at a cost that does not lead to financial ruin is the major goal of the National Eye Health Policy which this document intends to operationalize. The key strategy is to implement inclusive, integrated, patient centered eye services that meet the needs and aspirations of Nigerians, striking the most valued balance between promotive, preventive, curative and rehabilitative services.

Globally, vision impairment and blindness are major causes of human suffering, poverty, social exclusion, poor quality of life, disruptions in education and employment and early morbidity. Blindness in particular places a heavy economic burden on individuals, families, communities, and nations. The National Strategic Plan for Eye Health (2024-2028) represents the commitment of the Federal Government of Nigeria through the Federal Ministry of Health to the attainment of the highest quality of eye health for its people.

The plan is based on series of inter and multisectoral consultations and engagements with key stakeholders to ensure integration within and beyond the national health system. Evidence was generated through a thorough assessment of Nigeria's Eye Health System using the WHO Eye Care Assessment Tool. Data from the National Blindness and Vision impairment survey, more recent studies like the World report on vision also informed this work. It was also based on the global agenda for eye health from the World Health Assembly Resolution 2020 and 2021 and the United Nations resolution 2021, taking into cognizance local contexts. It addresses gaps identified from the implementation of the previous plan, and has set targets in strengthening leadership and governance, eye care integration into Health Information System, Primary Eye Care into Primary Health Care, increasing workforce capacity, effective partnerships, generating evidence to inform policies and programmes and empowering the people to take an active role in their eye health care.

This plan has been designed to guide the FMOH, subnational governments, partners and all other stakeholders in advocacy, planning, implementation, management, monitoring and evaluation of interventions that address the eye care needs of the people at all levels. When implemented, I am confident that this plan will improve access to eye care, thereby reducing poverty, alleviate hunger, enhance education, gender equality, decent work, and economic growth, reduce inequalities and guarantee sustainable communities as we make progress towards the sustainable development goals.

I recommend this plan for use by all stakeholders and partners involved in the provision of eye care services at facilities and in the communities. I thank everyone who contributed to the development of this plan.



Muhammad Ali Pate, CON

**Coordinating Minister of Health & Social Welfare**

# Acknowledgements

The Federal Ministry of Health (FMOH) undertook the task of developing the strategic eye health development plan (2024-2028) in order to ensure that the strategic objectives of the national eye health policy are actualized. This plan was developed in conjunction with other ministries, departments and agencies of government to whom we are grateful. We specifically commend the desk officers at the state ministries of health for their input and for providing unique perspectives that enriched this document.

Special thanks go to the technical working group and the consultants (Prof O. T Afolabi and Dr M.M Abdul) for their resolute commitment and dogged determination that ensured the conclusion of this document despite the disruptions occasioned by the Covid-19 pandemic and other challenges experienced along the way. We thank them for their professionalism and dedication.

We appreciate the efforts of all our development partners and professional associations in providing valuable technical inputs. We thank Sightsavers Nigeria for providing financial and technical support for the process. Special mention is made of their focal person Dr S. Penzin and Dr I. Nazaradden, for their unwavering support.

Finally, I commend the National Coordinator, Dr O. Okolo, her deputy Dr C. Obi-Mgbam and the members of staff of the National Eye Health Programme FMOH for their resilience, passion for excellence and their enviable coordination of the whole process.



Dr M.O. Alex-Okoh  
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# Contents

Foreword.....	■
Acknowledgement.....	■
Abbreviations.....	i
Executive Summary.....	ii
<b>Chapter 1:</b>	
<b>Background and context.....</b>	<b>1</b>
1.1 Country Profile.....	1
1.1.1 Demographic Structure.....	1
1.1.2 Political and Administrative Structure.....	2
1.1.3 Overview of Health Care system.....	3
1.2 Rationale and justification.....	4
1.3 Process of Development of the NEHSDP.....	4
<b>Chapter 2:</b>	
<b>Situation Analysis of Eye Care Programme.....</b>	<b>5</b>
2.1 Global context.....	5
2.1.1 Interventions.....	7
2.1.2 Cost Effectiveness Analysis.....	7
2.1.3 Global Agenda for Eye Health.....	7
2.2 National context.....	8
2.2.1 Epidemiology of Eye diseases in Nigeria.....	8
2.2.1.1 Blindness.....	8
2.2.1.2 Visual impairment.....	9
2.2.1.3 Major causes of blindness and Visual Impairment.....	9
2.2.2 Status of Eye care in Nigeria.....	13
2.2.3 National Eye Health Programme.....	19
2.2.4 National Eye Health Policy.....	20
2.2.5 Eye Health System SWOT Analysis.....	20
2.2.6 Strategic thrust of the National Eye Care Plan.....	22
<b>Chapter 3:</b>	
<b>National Strategic Eye Health Plan (NEHSDP).....</b>	<b>27</b>
3.1 Vision and Mission.....	27
3.2 Goal, Purpose and Objectives.....	27
3.3 Strategies and interventions.....	28
<b>Chapter 4:</b>	
<b>Coordination and Implementation.....</b>	<b>34</b>
4.1 Coordination and implementation process.....	34
4.1.1 Implementation Arrangement.....	34
4.1.2 Implementation Plan.....	37
4.1.3 Partnership coordination system.....	44
4.1.4 Risk Management and Mitigation.....	45
4.2 Monitoring and Evaluation.....	45
4.3 Costing.....	50
4.4 Summary Table for NEHSDP 2024-2028 Costing.....	52
<b>Annexes.....</b>	<b>53</b>
Annex 1 List of documents for desk review.....	53
Annex 2 List of Contributors.....	53



# Abbreviations

ACSM	Advocacy Communication and Social Mobilization
APOC	African Programme on Onchocerciasis
ARMED	Age Related Macular Degeneration
BHCPF	Basic Health Care Provision Fund
CDTI	Community Directed Treatment with Ivermectin
CI	Confidence Interval
CME	Continuing Medical Education
CSC	Cataract Surgical Coverage
CSR	Cataract Surgical Rate
DHIS	District Health Information System
DR	Diabetic Retinopathy
DRF	Drug Revolving Fund
EH	Eye Health
EHW	Eye Health Worker
EPI	Expanded Programme on Immunization
FCT	Federal Capital Territory
FMOH	Federal Ministry of Health
FRSC	Federal Road Safety Commission
GAP	Global Action Plan
GDP	Gross Domestic Product
HMB	Hospital Management Board
HReH	Human Resource for Eye Health
IEC	Information, Education and Communication
IOL	Intra Ocular Lens
IOP	Intra Ocular Pressure
IP	Implementing Partner
LGA	Local Government Authority
MDA	Ministries, Departments and Agencies
NA	Not Available
NAFDAC	National Agency for Food Drug Administration and Control
NDDC	Niger Delta Development Commission
NEDC	Northeast Development Commission
NEHC	National Eye Health Committee
NEHP	National Eye Health Programme
NEHSDP	National Eye Health Strategic Development Plan

NGDO	Non-Governmental Development Organization
NGO	Non-Governmental Organization
NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
NHMIS	National Health Management Information System
NPHCDA	National Primary Health Care Development Agency
NTDs	Neglected Tropical Diseases
OOPE	Out of Pocket Expenditure
PCO	Posterior Capsule Opacification
PEC	Primary Eye Care
PHC	Primary Health Care
PHCUOR	Primary Health Care Under One Roof
PMU	Programme Monitoring Unit
PPP	Public Private Partnership
PWD	Persons Living with Disability
QI	Quality Improvement
SDG	Sustainable Development Goal
SEHC	State Eye Health Committee
SERVICOM	Service Compatible with All Nigerians
SON	Standard Organization of Nigeria
SOP	Standard Operating Procedure
SPHCDA	State Primary Health Care Development Agency
SSHIS	State Social Health Insurance Scheme
STH	Soil Transmitted Helminths
SVI	Severe Visual Impairment
SWOT	Strength, Weakness, Opportunities and Threat
TWG	Technical Working Group
UEH	Universal Eye Health
UHC	Universal Health Care
URE	Uncorrected Refractive Error
VA	Visual Acuity
VCSHIP	Voluntary Contributory Social Health Insurance Programme
WDC	Ward Development Committee
WHA	World Health Assembly

# Executive Summary



Nigeria has an estimated population of 223 million people and is the most populous country in Africa and seventh most populous country in the world. The population is projected to grow to 396 million by 2050, meaning that Nigeria will be the world's fourth largest population. Health is a priority in the Nigeria Constitution and, the delivery of health services is organised principally at three levels of care as follows: Primary care; Secondary care and Tertiary care. Nigeria's total expenditure on health as percent of GDP has decreased gradually from 5.02 % in 2003 to 3.03 % in 2019 (World Bank,

2020). Only about 30% of people in the public sector have access to standard health care insurance including under the National Health Insurance Scheme while most of the population (69%) is provided by the Private Out -of-Pocket Expenditure in Nigeria which accounts for over 70% of the estimated \$10 per capita expenditure on health.

Eye health and vision have widespread and profound implications for many aspects of life, health, sustainable development, and the economy. Yet nowadays, many people, families, and populations continue to suffer the consequences

of poor access to high-quality, affordable eye care, leading to vision impairment and blindness.

In 2020, an estimated 596 million people had distance vision impairment worldwide, of whom 43 million were blind. Another 510 million people had uncorrected near vision impairment, simply because of not having reading spectacles. A large proportion of those affected (90%), live in low-income and middle-income countries (LMICs) like Nigeria. However, encouragingly, more than 90% of people with vision impairment have a preventable or treatable cause with existing highly cost-effective interventions. Eye conditions affect all stages of life, with young children and older people being particularly affected. Crucially, women, rural populations, and ethnic minority groups are more likely to have vision impairment, and this pervasive inequality needs to be addressed. By 2050, population ageing, growth, and urbanisation might lead to an estimated 895 million people with distance vision impairment, of whom 61 million will be blind. Action to prioritise eye health is needed now.

In Nigeria, according to the most recent National Blindness and Low Vision Survey which was completed 16 years ago in 2007 estimated that 1,130,000 individuals aged  $\geq 40$  years were blind in Nigeria (95% CI: 1.03-1.25 million). The North-West geo-political zone had the largest number of blind adults (28.6%) being the zone with the largest population. A further 2,700,000 adults aged  $\geq 40$  years were estimated to have moderate visual impairment and an additional 400,000 adults were severely visually impaired. Thus, a total of 4.25 million adults aged  $\geq 40$  years in Nigeria were estimated to be visually impaired or blind. The prevalence of blindness varied across the different ecological zones being highest in the Sahel (6.6%) and the lowest in the delta (3.3%). The overall prevalence of blindness in people of all ages was estimated to be 0.78%.

The leading cause of blindness was untreated cataract, others were uncorrected refractive error (URE), glaucoma, age related macular degeneration, diabetic and hypertensive retinopathies. The National Blindness and Low vision survey found the prevalence of blindness among children aged 10-15yrs who were examined to be 0.6%, with measles, Vitamin A deficiency and traditional eye medication.

In 2020 in Nigeria, there were an estimated 24 million people with vision loss (distance and near vision). Of these, 1.3 million people were blind (IAPB Vision Atlas). A further approximately 50 million people have non-vision impairing eye conditions needing basic eye care services.

Opportunities exist to reduce the personal, societal and economic burden of vision loss through initiatives such as a

national comprehensive school eye health programme, the integration of eye care into primary care, human resource development at all tiers of the health system including the resourcing of governance, establishing a data-driven demand generating (screening) and referral system utilising primary care to increase access to eye health services and to strengthen public and private refractive services including reading glasses being widely available through multiple channels.

It is in recognition of this that the national health policy made promotion and improvement of eye care services a priority in Nigeria. The Federal Ministry of Health (FMOH) through the National Eye Health Programme (NEHP) with the support of partners in 2019 developed the National Eye Health Policy which aims to drive the National Eye Health agenda against the backdrop of regional and international perspectives for the elimination of avoidable blindness and vision loss by achieving Universal Eye Health, a component of Universal Health Coverage (UHC) that ensures that eye care covers a wide range of eye disorders, from promotive, preventive, curative to rehabilitative care in an equitable manner to every Nigerian irrespective of age, gender, ethnicity, religion and socio-economic status without being exposed to financial hardship. To facilitate the implementation of these policies, the Federal Ministry of Health through the NEHP shall develop a National Eye Health Strategic Development Plan (NEHSDP), in line with the National Eye Health Policy 2019 and the National Strategic Health Development Plan (NSHDP) II.

The NEHSDP was developed through a consultative process involving all stakeholders. The development of the NEHSDP consisted of the following six key phases:

1. A "Desk Review" of existing national and international documents related to Eye Health was conducted to gather relevant information for the Nigeria NEHSDP.
2. A "Situation Analysis" of the Nigerian health system and stakeholders was conducted to identify existing actions and problems in the eye care service provision.
3. Meeting was held with the Technical Working Group (TWG) on Eye Health to collect opinions and inputs, as well as other data that could help to design evidence-based strategic actions for the NEHSDP.
4. "Consultative Stakeholders Workshops" were organized to brainstorm and build consensus on proposed actions and strategies for the plan. Two initial workshops (SWOT analysis and Strategy session) were held with stakeholders (officials from institutions and agencies that are involved in eye health activities) working in the areas of eye health to obtain their contributions to the design of the plan. These consultative workshops allowed validation of findings from



the situation analysis, and to agree on key strategic actions to be implemented under the NEHSDP.

5. After the situation analysis and the consultation workshops, a draft of NEHSDP was developed and shared with all participants in the first two workshops for inputs and a consensus was reached on strategic objectives, strategic interventions, implementation, and monitoring mechanisms.
6. All relevant inputs and comments were integrated. Then, a final draft of the National Eye Health Strategic Development Plan was produced and submitted to stakeholders for review and final inputs.

Thereafter, the plan was costed and submitted for review. Input from stakeholders were taken on board and the final version of the plan was submitted to the Ministry of Health for internal approval and validation of the strategic document.

A validation meeting was conducted before launch of the plan. The NEHSDP was drafted with **Chapter 1** giving a background, context and justification for the strategic plan. **Chapter 2** assessed the situation of eye care programme in Nigeria; epidemiology of eye diseases in Nigeria; the national eye care programme including a SWOT analysis; strategic thrust of the National Eye Health Policy which included:

- Leadership and Governance
- Equity
- Access
- Quality of care
- Strengthening the health facilities
- Referral system and network
- Financing mechanism
- Research Development and Innovation
- Inter-sectoral collaboration and
- Partnership

**Chapter 3** discussed the National Eye Health Strategic Development Plan stating the vision and mission and setting goal, purpose and objectives.

**VISION** Achieving Universal Eye Health (UEH) as a component of Universal Health Coverage (UHC) such that all people in Nigeria have optimal eye care are free from avoidable vision loss and blindness; and people with vision loss can develop their full potential in an equitable manner.

**MISSION** To provide a framework for collective direction to scale up eye care delivery at all levels of health care service provision; providing an interface for all stakeholders to galvanize action for development in eye care.

**GOAL** To develop a sustainable approach for promoting healthy eyes and good vision for all and achieving access to quality eye care; towards the elimination of avoidable blindness and vision loss.

**PURPOSE** To improve eye care services including rehabilitation to achieve universal eye care coverage in Nigeria

### **STRATEGIC OBJECTIVES**

1. To strengthen governance and coordination of all stakeholders for effective eye care programme implementation towards achieving Universal Health Coverage.
2. To ensure that all Nigerians have equitable access to high quality sustainable and patient-centered eye care services.
3. To improve the quality assurance systems in the delivery of eye care services.
4. To ensure that at least 80% of health care facilities provide quality and affordable eye care services integrated within the health system
5. To strengthen referral system for integrated eye care delivery in the country.
6. To develop sustainable financing mechanisms for eye care
7. To generate reliable data for evidence-based decision making for eye care.
8. To strengthen, streamline and integrate supply for eye health commodities into health system supply chain.

The chapter also articulated the strategies and interventions to be deployed to achieve the stated goals and objectives.

- Integrating eye care services into existing national health programmes.
- Building capacity for eye care delivery at all levels.
- Improving public awareness of eye care.
- Strengthening the evidence base for eye care problems and care.
- Strengthening referral pathway for eye care.
- Advocacy for improved funding for eye care at all levels of care.

Activities were developed along these strategic directions.

**Chapter 4** is about coordination and implementation structures for the plan including the implementation plan. It also elucidated upon risk management and mitigation strategies and the monitoring and evaluation framework with emphasis on indicators to be tracked and when they will be tracked in the life cycle of the plan as well as targets to be achieved by 2028. A costing of the plan was also included in this chapter.

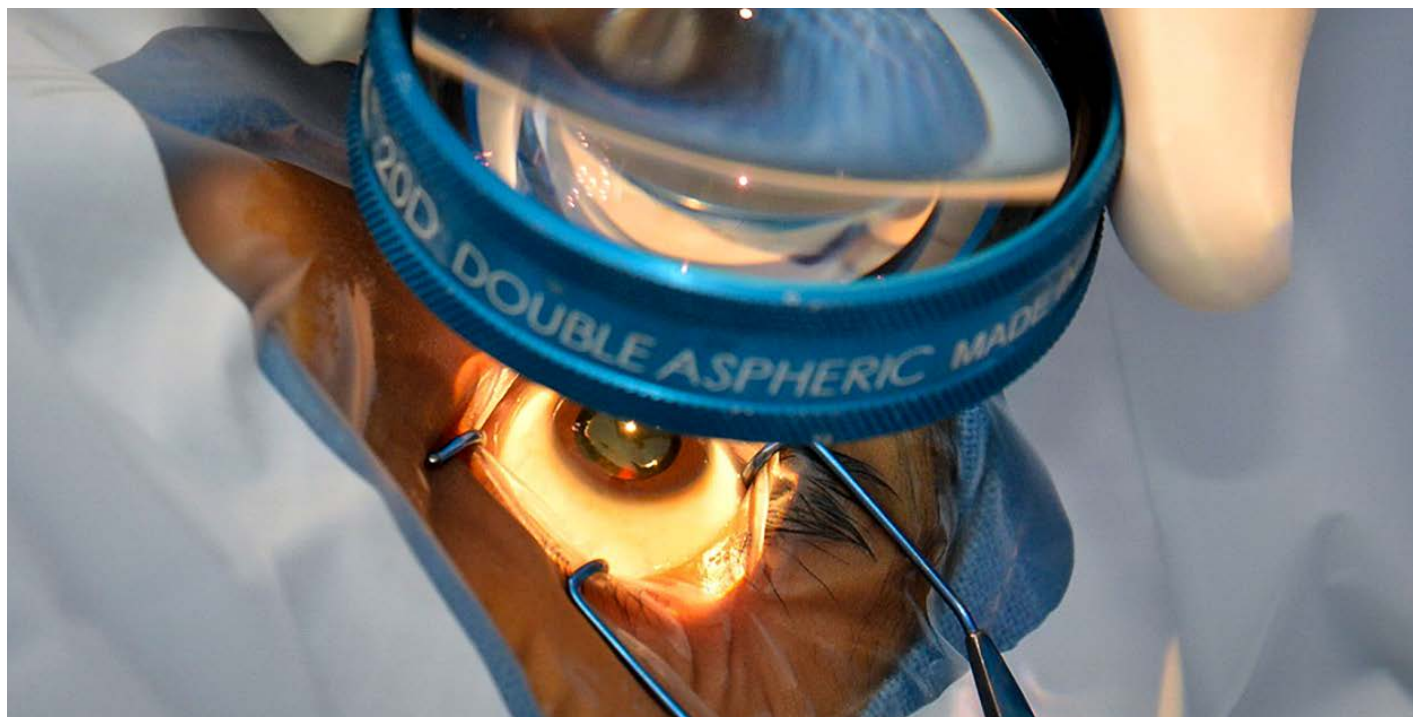
STRATEGIC OBJECTIVES	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL BUDGET (NGN)
<b>Strategic Objective 1:</b> To strengthen governance and coordination of all stakeholders for effective eye care programme implementation towards achieving Universal Health Coverage	181,038,500.00	107,269,575.00	95,168,902.50	85,980,281.63	109,533,522.46	578,990,781.58
<b>Strategic Objective 2:</b> To ensure that all Nigerians have equitable access to high quality, sustainable and patient-centered eye care service	179,256,500.00	1,794,708,037.50	1,833,781,359.38	70,677,636.75	74,211,518.59	3,952,635,052.21
<b>Strategic Objective 3:</b> To improve the Quality Assurance systems in the delivery of eye care services	52,025,000.00	68,872,650.00	50,715,000.00	53,250,750.00	79,728,701.46	304,592,101.46
<b>Strategic Objective 4:</b> To ensure that at least 80% of health care facilities provide quality and affordable eye care services integrated within the health system	20,225,000.00					20,225,000.00
<b>Strategic Objective 5:</b> To strengthen referral system for integrated EH delivery in the country	30,040,000.00	31,542,000.00	23,064,300.00	-	-	84,646,300.00
Strategic Objective 6: To develop sustainable financing mechanisms for EH	15,648,000.00	12,499,200.00	13,124,160.00	13,780,368.00	14,469,386.40	69,521,114.40
Strategic Objective 7: To generate reliable evidence-based data for decision making for eye care	16,608,000.00	7,862,400.00	8,255,520.00	8,668,296.00	9,101,710.80	50,495,926.80
	<b>494,841,000.00</b>	<b>2,022,753,862.50</b>	<b>2,024,109,241.88</b>	<b>232,357,332.38</b>	<b>287,044,839.70</b>	<b>5,061,106,276.45</b>

The strategic plan provides a road map for eye health in her vision to achieve universal eye coverage as part of universal health coverage. This we hope will be achieved by ensuring that the first point of care in the health system (PHC) is galvanized to provide essential eye care services and have requisite knowledge and skills to appropriately refer to the next level of care. This vision will no doubt require enormous investments from Government and other stakeholders if “no one is to be left behind”.



# Chapter 1

## Background and Context



### 1.1 Country Profile

#### 1.1.1 Demographic Profile

Nigeria is located between latitude 4,14,5 and 14° N and longitude 50 and 140 on the west coast of Africa and shares boundaries with Benin, Niger, Chad and Cameroon. Nigeria is the 14th largest country in the world. It covers an area of 923,768 square metres with a wide variety of ecological zones which spans from the arid semi desert of the far north, the Sahel Savannah in the north, the guinea savannah of the middle belt region, the tropical rain forest of the south to the mangrove swamps of the Niger-Delta with a southern border of 853 kilometres coastline of the Atlantic Ocean. It lies on the West Coast of Africa

With an estimated population of 210 million in 2022, Nigeria is the most populous country in Africa and is ranked the seventh most populous country in the world. The population is projected to grow to 396 million by 2050, meaning that Nigeria will be

the world's fourth largest population. Nigeria's population is unevenly distributed across the country. Large areas in the Chad Basin, the middle Niger Valley, the grassland plains, among others, are sparsely populated. The average population density for the country in 2006 was estimated at 150 people per square kilometre. The most densely populated states are Lagos, Anambra, Imo, Abia, and Akwa Ibom. Most of the densely populated states are found in the South East. Kano State, with an average density of 442 persons per square kilometre, is the most densely populated state in the north. There are nearly 300 ethnic groups in the country, more than 500 languages, and two major religious groups (Islam and Christianity) The urban population is 52% of the total population. The country has a young population structure (pyramidal). Children aged under 15 years constitute 45% and young people (10-24 years) make up 33% of the population. Women in the reproductive age group, children under five and the elderly (at least 65 years) make up 22%, 20% and less than 5% of the population respectively. Consequently, Nigeria has a high dependency ratio

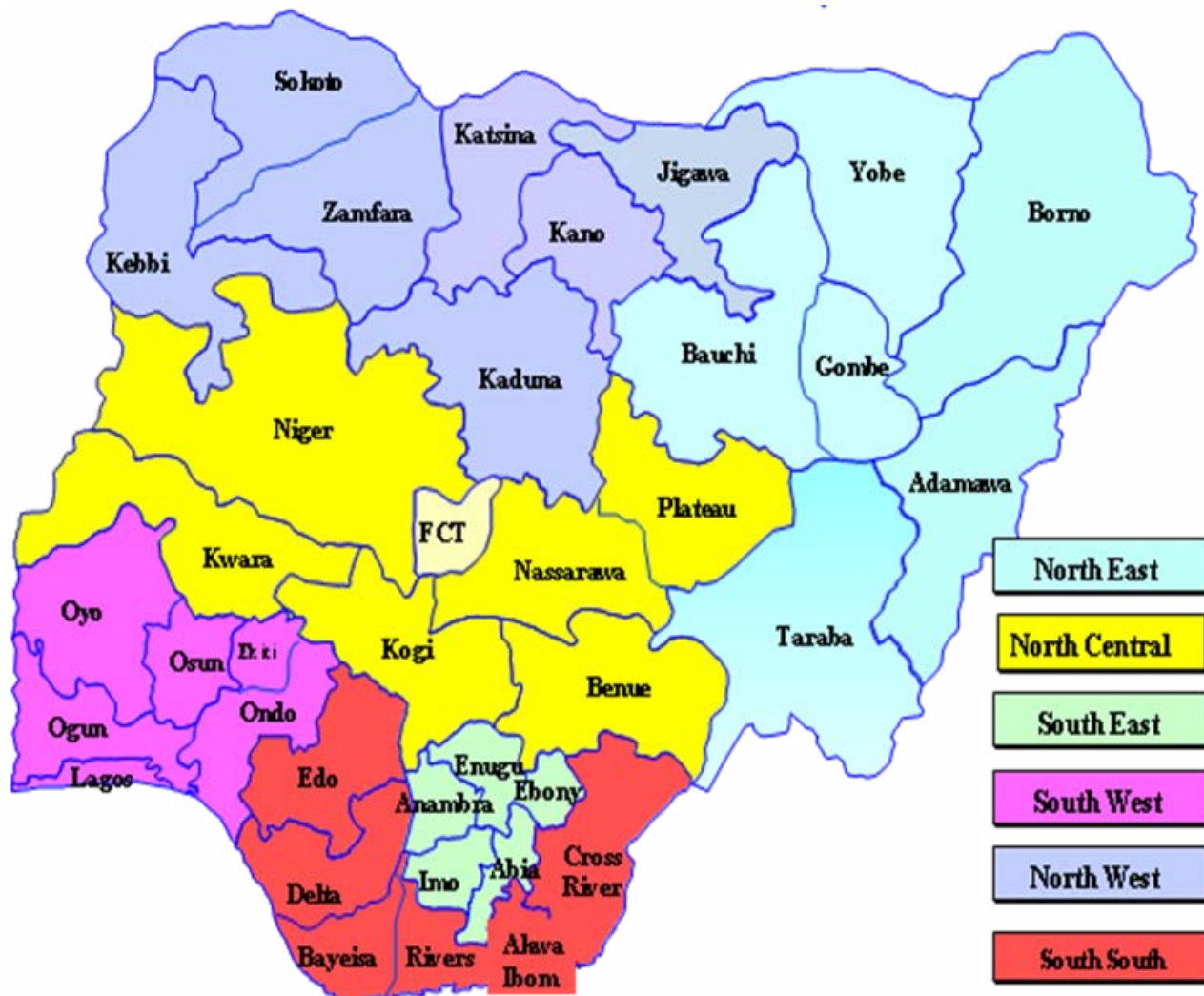
of 73.3%, which is worsened by the very high rates of youth unemployment and high total fertility rate of 5.8 in 2017. The current fertility rate for Nigeria in 2020 is 5.4 births per woman. The literacy rate (age 15 and over can read and write) is 59.6%. Life expectancy at birth is 55.8/years for both sexes.

**1.1.2 Political and Administrative Structure**

Politically, Nigeria is divided into six geopolitical zones (North East, North West, North Central, South East, South West and South South) based on geographical and socio-cultural similarity (see Figure 1). Administratively, the country is made up

of 36 States and FCT with 774 Local Government Areas (LGAs). The LGAs are further divided into 8806 political wards (review political wards), which are the focus of PHC revitalisation to achieve Universal Health Coverage (UHC). At the lower level of the structure are the individual communities which comprise groups of families and lineages based on their common residence. Most communities are divided into residential wards under a ward head. Administratively, the country operates a three-tiered federal system of governance comprising Federal, the 36 States and the FCT, and the LGAs.

**Nigeria - 36 States & FCT by Geo-Political Zones**



Political and Administrative Structure of Nigeria

### 1.1.3 Overview of Health Care System

Health is on the concurrent list in the Nigeria Constitution therefore, the delivery of health services is organised principally at three levels of care as follows:

- Primary care, which is largely the responsibility of LGA councils with the support of the State Ministry of Health and The Federal Ministry of Health. However, following the review by the NPHCDA to improve access, the ward health system was developed as the smallest political structure, which serves as the operational area for delivering a minimum health care package. (Ward Minimum Health Care Package for Nigeria 2007-2012).
- Secondary care, which provides specialised services to patients referred from the primary health care (PHC) level and is the responsibility of the State Government, and
- Tertiary care, which provides highly specialized services referred from the primary and secondary levels of care and is the responsibility of the Federal and State governments.

#### Categories of service providers:

The Nigerian health system is characterised by three categories of service providers:

- Government/public providers including hospitals run by the military.

- Private not-for-profit organisations, such as religious organisations, individuals, and NGOs (local and international).
- Private for-profit organisations.

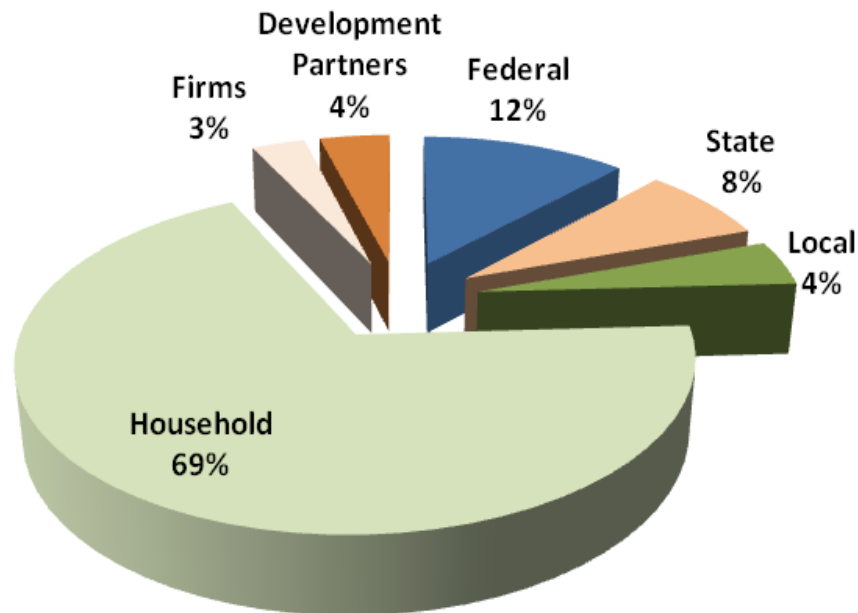
Lately, public-private partnerships are becoming common to stem the tide of underfunding in the health sector and improve efficiency.

Nigeria has viable, though vastly unregulated private health sector that provides various health services ranging from primary care to tertiary care and contributes up to 60% of health care for both urban and rural populations.

#### Funding of the Health Care System

Nigeria's total expenditure on health as percent of GDP has decreased gradually from 5.02 % in 2003 to 3.03 % in 2019 (World Bank, 2020). Only about 30% in the public sector have access to standard health care insurance including under the National Health Insurance Scheme while most of the population (69%) is provided by the Out-of-Pocket Expenditure in Nigeria which accounts for over 70% of the estimated \$10 per capita expenditure on health (Figure 2).

#### Sources of health funding in Nigeria



National Health Insurance Scheme was established by the government in 1999 to improve access to good health care services, reduce the financial burden of medical bills and ensure the availability of funds for the health sector. Contributors to the scheme include Government employees and registered private sector.

## 1.2 Rationale and Justification

Globally, there is an estimated 2.2 billion people who are visually impaired or blind. Of these, one billion people have moderate or severe distance vision impairment or blindness that could have been prevented or has yet to be addressed. This number includes those with moderate or severe distance vision impairment or blindness due to unaddressed refractive error (123.7 million), cataract (65.2 million), glaucoma (6.9 million), corneal opacities (4.2 million), diabetic retinopathy (3 million), and trachoma (2 million), as well as near vision impairment caused by unaddressed presbyopia (826 million) (World Vision Report 2019).

In Nigeria, according to the National Blindness and Low Vision Survey, 2007 the prevalence of blindness in all ages is 0.78%. The major cause of blindness is cataract, others are uncorrected refractive error (URE), glaucoma, age related macular degeneration, diabetic and hypertensive retinopathies. The National Blindness and Low vision survey found the prevalence of blindness among children aged 10-15yrs who were examined to be 0.6%, with measles, Vitamin A deficiency and traditional eye medication accounting for 3%. In 2020 in Nigeria, there were an estimated 24 million people with vision loss (distance and near vision). Of these, 1.3 million people were blind (IAPB Vision Atlas). A further approximately 50 million people will have non-vision impairing eye conditions needing basic eye care services, including the provision of appropriate Assistive Technology to blind and visually impaired persons. It is in recognition of this that the national health policy made promotion and improvement of eye care services as a priority in Nigeria. This would be achieved by integrating eye care services into existing national health programmes, building capacity for eye care delivery at all levels, improving public awareness of eye care and strengthening the evidence base for eye care problems and care.

The Federal Ministry of Health (FMOH) through the National Eye Health Programme (NEHP) with the support of partners in 2019 developed the National Eye Health Policy which aims to drive the National Eye Health agenda against the backdrop of regional and international perspectives for the elimination of avoidable blindness by achieving Universal Eye Health, a component of Universal Health Coverage (UHC) that ensures that eye care covers a wide range of eye disorders, from promotive, preventive, curative to rehabilitative care in an equitable manner to every Nigerian irrespective of age, gender, ethnicity, religion and socio-economic status without being exposed to financial hardship.

To facilitate the implementation of these policies, the Federal Ministry of Health through the NEHP shall develop a National

Eye Health Strategic Development Plan (NEHSDP), in line with the National Eye Health Policy 2019 and the National Strategic Health Development Plan (NSHDP) II.

## 1.3 Process of Development of the NEHSDP

The development of the NEHSDP consisted of the following six key phases:

1. A “Desk Review” of existing national and international documents related to Eye Health was conducted to gather relevant information for the Nigeria NEHSDP.
2. A “Situation Analysis” of the Nigerian health system and stakeholders was conducted to identify existing actions and problems in the eye care service provision.
3. Meeting was held with the Technical Working Group (TWG) on Eye Health to collect opinions and inputs, as well as other data that could help to design evidence-based strategic actions for the NEHSDP.
4. “Consultative Stakeholders Workshops” were organized to brainstorm and build consensus on proposed actions and strategies for the plan. Two initial workshops (SWOT analysis and Strategy session) were held with stakeholders (officials from institutions and agencies that are involved in eye health activities) working in the areas of eye health to obtain their contributions to the design of the plan. These consultative workshops allowed validation of findings from the situation analysis, and to agree on key strategic actions to be implemented under the NEHSDP.
5. After the situation analysis and the consultation workshops, a draft of NEHSDP was developed and shared with all participants in the first two workshops for inputs and a consensus was reached on strategic objectives, strategic interventions, implementation, and monitoring mechanisms.
6. All relevant inputs and comments were integrated. Then, a final draft of the National Eye Health Strategic Development Plan was produced and submitted to stakeholders for review and final inputs.
7. Thereafter, the plan was costed and submitted for review. Input from stakeholders were taken on board and the final version of the plan was submitted to the Ministry of Health for internal approval and validation of the strategic document.
8. A validation meeting was conducted before launch of the plan.

## Chapter 2

# Situation Analysis of Eye Care Programme

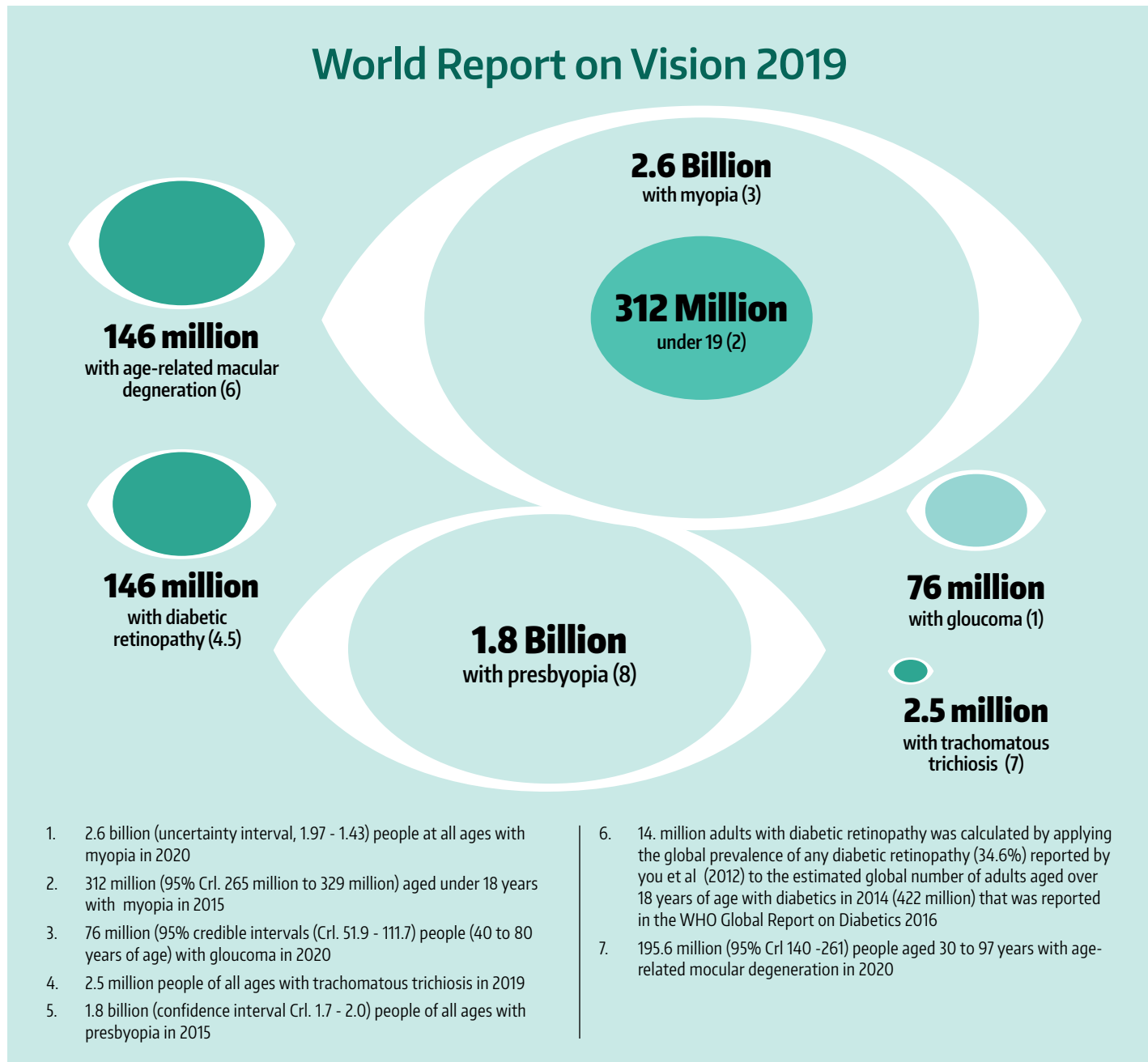


### 2.1 Global Context

Globally, at least 2.2 billion people have a vision impairment or blindness. In at least 1 billion of these cases, vision impairment could have been prevented or has yet to be addressed. The prevalence of bilateral blindness in low- and middle-income regions of western and eastern sub-Saharan Africa (5.1%) and South Asia (4.0%) are reported to be eight times higher than in all high-income countries (<0.5%). Nine out of 10 of the world's vision-impaired people live in low and middle-income countries (World Report on Vision, 2020). At a global level, no strong association exists between gender and many eye conditions, including glaucoma, age-related macular degeneration, and diabetic retinopathy (World Vision Report, 2020). However, rates of cataract and trachomatous trichiasis are higher among

women, particularly in low- and middle-income countries. More than half of the blind (56%) are women. A staggering 1.8 billion people aged 35 years plus cannot read fine print or see near objects (presbyopia) simply because they do not have spectacles for correction. The increasing number of people ageing, and an increasing global population surpass the improvement made in eye care service development; hence the number of people who are blind or visually impaired is increasing. Cataract continues to be the leading cause of blindness worldwide. Others are glaucoma, trachoma, age-related macular degeneration, diabetic retinopathy, and different conditions of childhood blindness, to name a few. Affluent lifestyle and dietary changes have influenced the emergence of non-communicable diseases such as diabetes and hypertension with attendant eye complications such as diabetic and hypertensive retinopathies and vascular occlusions.





Source: World Report on Vision 2019

**Figure 3:** Global estimates of numbers of people affected by selected eye conditions that can cause vision impairment.

The major challenge in eye care remains reducing the inequality in coverage. Currently, 1 billion people are being left behind in eye care. Sadly, blindness and vision impairment tend to be concentrated among the poorest and most socially disadvantaged members of society. In addition, eye care remains poorly integrated into national health systems.

Currently, eye care is not included in 191 out of 194 of national health strategic plans received by the WHO.

Planetary health is an emerging issue with the opportunity to advance Sustainable Development Goals related to the planetary health, namely SDG12 on Responsible Consumption and Production and SDG13 on Climate Action. Service provision in eye health must be environmentally sustainable to reduce greenhouse gas emission, therefore its impact on climate

change. Reducing the carbon footprint of interventions, and policies will be part of the decision-making processes.

Environmentally friendly and biodegradable packaging for all ophthalmic products, reduction of and responsible disposal of surgical and clinical waste (per eye care worker) are priority actions that should be taken onboard going forward. Increasing the numbers of surgeries per theatre, per surgeon per day will reduce waste.

### 2.1.1 Interventions

There are highly effective evidence-based interventions for cataract and uncorrected refractive errors (URE) that restore sight in 95% of beneficiaries. Having cataract surgery improves family wealth, productive work and quality of life.

Gold standard partnerships have substantially reduced the risk of Onchocerciasis (river blindness) and Trachoma. Spectacles for low vision and correction of refractive errors are on the Priority Assistive Products List of WHO, because they are needed to maintain or improve an individual's functioning and independence. There is considerable productivity increase in correcting near-vision impairment (presbyopia) at the community level with high uptake of reading glasses; underscoring the need to provide good quality, affordable spectacles at the primary healthcare level.

The inclusion of primary eye care (PEC) in national eye care programmes has shown remarkable improved access to care and reduction in blindness. For example, in Rwanda, equity in geographical distribution of services and health insurance cover have increased demand for eye care such that it is now the second most common reason for uptake of healthcare. In Nigeria, the process of integration of PEC into PHC has begun with the domestication of the WHO PEC training manual in 2020. Training of Community Health Workers has commenced in some states of the federation; a countrywide scale up is planned. Additionally, School Eye Health is a core strategy for identifying children with URE and other eye conditions and an evidence-based model for the delivery of integrated patient centered eye care services. Implementation commenced with the development of the National School Eye Health Guidelines 2020, Increasing effective refractive error coverage using the WHO SPECS initiative is in the pipeline.

### 2.1.2 Cost-effectiveness Analysis

Eye care is an area of health care with many highly cost-effective interventions for health promotion, prevention, treatment and rehabilitation. This includes UREs and cataract which can be corrected overnight by a simple pair of glasses or low-cost surgery. The WHO/World Bank have included cataract

and trichiasis (from trachoma) surgeries within a list of 44 essential surgical procedures as they address substantial needs, are cost-effective and can be feasibly implemented.

### 2.1.3 Global Agenda for Eye Health

The 73rd World Health Assembly with 194 Member State including Nigeria adopted a resolution, 'Integrated people-centered eye care, including preventable vision impairment and blindness' (WHA 73.4), that transforms the World Report on Vision from a simple document, into a political commitment to take action on its recommendations. Its central message is to make eye care an integral part of Universal Health Coverage (UHC) and to implement 'integrated people-centered eye care' within health systems, across the spectrum of services from health promotion, prevention, treatment and vision rehabilitation. This National Eye Health Strategic Development Plan is aligned with this global commitment – "IPEC resolution". The 74th World Health Assembly endorsed the global targets for effective coverage of eye care services to be achieved by member nations by 2030 (WHA 74). The large unmet need for cataract and refractive error services and availability of cost-effective interventions makes monitoring services that address these conditions a reasonable proxy for the general status of the eye health system (uptake and quality of services) and progress towards UHC. The targets set for member nations are, a 40 per cent increase in the coverage of refractive errors (eREC) and a 30 per cent in the coverage of cataract surgery (eCSC).

The UN General Assembly unanimously adopted the first ever resolution on eye health on Vision in 2021; (Vision for everyone resolution), calling on all member states to ensure access to eye care for all citizens by 2030, thus enshrining access to eye care as a fundamental human right. It encourages countries to institute a "whole of government approach to eye care." And it calls on international financial institutions and donors to provide targeted financing, especially for developing countries, to address the increasing impact of vision loss on economic and social development. The Lancet Global Health Commission on Global Eye Health further emphasized the critical role of eye health in achieving UHC and the SDGs, with a call to action to reframe eye health as a social, economic and development issue that requires greater attention within global and health agendas.

More recently, the 2030 IN SIGHT a new sector strategy was launched which aims to ensure that by 2030 no one experiences preventable sight loss, and everyone can achieve their full potential. 2030 IN SIGHT brings together the WHO World Report on Vision, the WHA resolutions, the Lancet Global

Health Commission on Global Eye Health and the Landmark UN resolution, Vision for Everyone. The strategy is to ELEVATE vision as a fundamental, economic, social and developmental issue, INTEGRATE eye Health in wider health care systems and ACTIVATE consumer demand and market change. To this end there are 10 priorities for the next 10 years. These are to develop leadership, advocate differently, secure new forms of funding, embrace technological solutions, strengthen partnerships with the private sector, create new allies, develop the workforce, prove our case, improve accountability, and influence the widest audience. The goal is to have a world where No-one experiences unnecessary or preventable sight loss, and everyone can achieve their full potential by 2030. To ensure that eye care and rehabilitation services are accessible, inclusive, and affordable to everyone, everywhere, whenever they are needed and people understand the importance of caring for their own eye health and demand access to services, free from the weight of any social stigma.

## 2.2 National Context

### 2.2.1 Epidemiology of Eye Diseases in Nigeria

#### 2.2.1.1 Blindness

The now outdated but most recent National Blindness and Low Vision Survey conducted in 2005-2007 provides most of the information on blindness and visual impairment for the country. Prevalence of blindness in the country was 4.2% in adults 40 years and above and 0.78% in all ages. The prevalence increases significantly with age, from 0.8% at 40-49 years; 5.5% at 50-59 years, 9.3% among those aged 60-79 years to 23.3% among those aged 80 years and above. It is estimated that 4.25 million adults aged 40 years and above have moderate to severe visual impairment (SVI) or blindness. Females had a higher prevalence of blindness (4.4%) than males (4.0%). Non-literate participants had far higher prevalence of blindness (5.8%) than those who could read and write (1.5%). The North-East geopolitical zone has the highest prevalence of 6.1%, followed by the North-West 4.8%, South-East 4.6%, North-Central 3.8%, South-South 3.2%, and the South-West 2.8%. The main causes of blindness were cataract and glaucoma (Table 1) Cause-specific prevalence of blindness from cataract, glaucoma, uncorrected aphakia and corneal opacities were significantly higher in poorer

households. Blindness was associated with increasing age, being female, poor literacy, and residence in the North.

#### Principal Causes of Bilateral Blindness,

PRINCIPAL CAUSE	SNELLEN VISUAL ACUITY < 3/60 (BLIND) %
<b>Treatable</b>	
Uncorrected Refractive Error	1.4
Cataract	43.0
Uncorrected aphakia	8.4
PCO	0.2
Glaucoma	16.7
Diabetic Retinopathy	0.5
Pterygium	0.5
<b>Total Treatable</b>	<b>70.8</b>
<b>Preventable</b>	
Trachoma	4.2
Other Corneal Scars	7.9
Onchocerciasis	1.1
<b>Total Avoidable</b>	<b>84.0</b>
<b>Unavoidable</b>	
Phthisis/ Absent Globe	2.3
Macular Degeneration	1.8
Optic Atrophy	3.7
Other Retina & Posterior Segment	3.0
Others	0.3
<b>Total Unavoidable</b>	<b>11.1</b>
Undetermined	4.9
<b>All Blindness</b>	<b>100</b>

In the survey, it was anticipated that the number of blind and SVI adults in Nigeria would increase by 40.7% by 2020 compared to 2008. If the cause specific prevalence of blindness has remained the same the survey projected that there are now about 1.4million adults 40 years and above in who are visually impaired of whom 600000 will need cataract surgery. Cataract blind and SVI increased by 43% since the survey. Table 2

Cause	2008	2020	2023
Cataract	399,041	570,511	612,941
Glaucoma	147,064	205,265	220,531
Uncorrected aphakia	101,426	142,047	152,611
Refractive Error	49,292	67,317	72,323
Central Corneal Opacity	117,412	163,894	176,083
Posterior segment causes	88,342	123,217	132,381
All Other causes*	122,739	170,300	182,965
<b>Total</b>	<b>1,025,316</b>	<b>1,442,551</b>	<b>1,549,835</b>

\* Includes trauma, traditional eye medicines, toxoplasmosis

Estimated Number of Adults (40 years) in Nigeria with Severe Visual Impairment and Blindness (VA < 6/60 in the better eye) Project for 2023.

### 2.2.1.2 Visual impairment

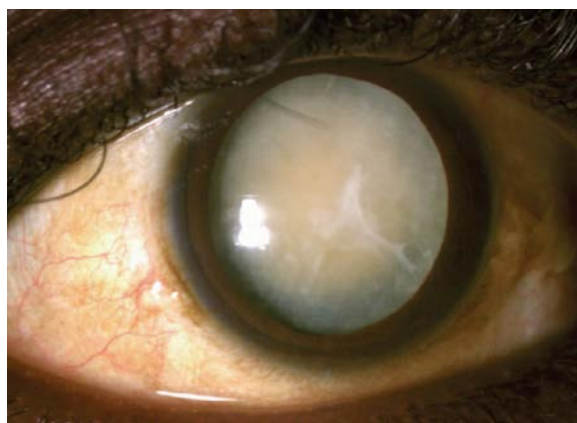
Prevalence of severe visual impairment (SVI) was 1.5%. There was estimated 1,130,000 Nigerians aged 40 years and above who were blind and another 3,100,000 of same age group visually impaired.

A total of 4.25 million adults aged 40 years and above in Nigeria were visually impaired or blind. About 72.8% of visual impairment is attributable to Cataracts, followed by Trachoma (4.2%) (table 2)

### 2.2.1.3 Major Causes of Blindness and Visual Impairment

#### A. CATARACT

Data from the national blindness and low vision survey show that cataract was responsible for 43% of blindness in all the zones of the country. The



prevalence of cataract specific blindness was 1.8% (95% confidence interval [CI 1.6-2.1] in adults 40 years and above. Even though cataract is responsible for almost half of blindness, the Cataract Surgical Rate (CSR – the number of cataract surgeries done per million populations per year), is low; estimated to range between 100 and 500 as opposed to WHO recommendation of at least 3000 CSR per million per year, depending on the age structure of the community. It is estimated that there is a backlog of over 2 million people needing cataract surgery in Nigeria. Over 70% of this population resides in the rural areas.

Prevalence of cataract surgery was 1.6% (95% confidence interval 1.4–1.8), significantly higher among those aged ≥70 years. Of all the cataract procedures, 43% were couching, this still being prevalent in different parts of Nigeria. Therefore, of the eyes that had any form of cataract surgery, only 40% had intraocular lens implanted and only 29.9% of eyes had a good outcome (i.e., >=6/18) at presentation post operatively but this increased to 55.9% with correction. Use of an IOL was the only factor associated with good outcome in the national survey.

Cataract surgical coverage (CSC) a population-based measure of the extent to which the need for cataract surgical services has been met, was very low. Cataract surgical coverage (persons) in Nigeria was 38.3%. Coverage was 1.7 times higher among males than females. Cataract surgical coverage was lowest in females in poor households (25.3%). Inability to afford surgery was the main barrier to cataract surgery in a third (36%) of all cataract blind patients.

#### B. GLAUCOMA



Glaucoma is not a single disease entity, but a group of conditions characterized by damage to the optic nerve (detected by pathological cupping of the optic disc) and loss of the field of vision. The National Blindness and Low Vision Survey result indicated that Glaucoma is responsible for 16.7% of blindness in the country. The glaucoma-specific blindness prevalence in Nigeria is 0.7 %, (95%CI 0.6– 0.9 %) among those aged 40 years and above. Glaucoma is the second-leading cause of blindness after cataract responsible for 16.7% of blindness. The all-glaucoma prevalence in Nigeria in adults 40 years and above is 5.02% (95 % CI 4.6– 5.5 %), with 86 % being open angle glaucoma based on gonioscopy. An estimated 1.2 million adults in Nigeria had glaucoma in 2008. Increasing age, higher IOP and Igbo ethnicity were independent risk factors for glaucoma in Nigeria. The national blindness survey confirms that glaucoma is a public health problem in people ≥40 years. Therefore, as a public health strategy, opportunistic eye examination, case detection and examination for glaucoma need to be performed on all people aged ≥40 years and the ethnic groups most at risk.

Halting the progression of glaucoma is possible with treatment but the condition will remain a “silent thief of sight” in Nigeria unless strategies are adopted that improve awareness, earlier detection, uptake of services and adherence to treatment. Understanding how glaucoma is locally conceptualised, lived with and responded to by patients is essential to aid the design of interventions to prevent glaucoma blindness in in the country.

**C. TRACHOMA**

It is an infection caused by a Gram-negative obligate intracellular bacterium called Chlamydia trachomatis. In Nigeria, 84% of causes of blindness are avoidable



one of these is trachoma which is the second leading cause of preventable blindness in the country and responsible for 4% of blindness. It is also the leading infectious cause of blindness worldwide. The prevalence of the disease is highest in the arid northern part of this country where in some clusters it is the second leading cause of blindness after cataract. It can be prevented by implementing the SAFE strategy (surgery for trichiasis, antibiotics to clear infection, and promotion of facial cleanliness and environmental improvement to reduce transmission), as recommended by the World Health Organization (WHO).

Result of recent surveys conducted in many states of Northern Nigeria (Bauchi, Nasarawa, Plateau, Sokoto, Kebbi, Zamfara, Yobe, Katsina, Kano, Niger, and Jigawa states) revealed that active and blinding trachoma occurs in significant proportion in the states. Interventions are being carried out in some LGAs of Bauchi, Plateau, Nasarawa, Jigawa, Yobe, Sokoto, Zamfara, and Kebbi states even though the SAFE strategy which is the recommended method for elimination of trachoma remains to be implemented fully in these states. In 2018 alone, 146112 cases of trichiasis were managed and almost 90 million people were treated with antibiotics for trachoma in 782 districts worldwide.

**D. ONCHOCERCIASIS**

Onchocerciasis is endemic in all the states of the country except Bayelsa, Lagos, Katsina and Rivers States. It is estimated that about 31 million persons in about 36,000 communities in 32 States are at risk in Nigeria. Until recently, it was a major cause of blindness in many rural communities across the nation.



Current intervention strategies are in line with the WHO/APOC strategy that advocates Community Directed Treatment with Ivermectin (CDTI) for all at risk populations by mass distribution of Ivermectin taken once a year for over 15 years. In the past few years, average treatment coverage for Onchocerciasis has been above 70% annually. The APOC recommends over 65% coverage in order to achieve meaningful control of the disease.

**E. CHILDHOOD BLINDNESS**

The National Blindness and Low vision survey did not set out to examine children but among children aged 10-15 years who were examined, the prevalence of blindness was 0.6%. The survey also showed that measles, Vitamin A deficiency and traditional eye medication accounts for 3% of childhood blindness in



Nigeria. Studies done in South-Eastern and South-Western Nigeria in schools for the blind and regular schools showed cataract was responsible for 24% of blindness among children. This is closely followed by corneal scarring from measles or use of harmful traditional medications and Trauma (17.7%) Congenital glaucoma was found to account for 8% while optic atrophy was 9.7% 2. There is no data on the magnitude of childhood refractive error in Nigeria. However, it is believed that refractive error is a significant cause of low vision amongst Nigerian children. The current control measures include routine EPI, Vitamin A supplementation and other childcare health services. Congenital cataract and glaucoma are treated by surgery and Vision 2020 recommends the development of paediatric centres with paediatric oriented ophthalmic teams. In 2019 the FMOH launched the Treatment Guidelines for Delivery of

Child Eye Health Services in Nigeria. This document is aimed at providing guidance for the delivery of quality child eye health services in Nigeria. The document was produced through rigorous systematic reviews and contributions of stake holders, technical experts and organisations involved in eye care in line with global best practices. It defines the role of specific interventions in the diagnosis, investigation, and management of patients. It is hoped that this will be a very good guide for the provision of eye care services to the paediatric population of Nigeria.

**F. REFRACTIVE ERRORS AND LOW VISION**

Uncorrected refractive errors are an important cause of visual impairment in Nigeria, Results from the National blindness survey show that uncorrected refractive error was responsible for 80% of mild distance visual



impairment (6/12–6/18), 57% of moderate distance visual impairment (6/18–6/60), 11.3% of severe distance visual impairment (6/ 60–3/60), and 1.4% of blindness (<3/60). The crude prevalence of myopia (>0.5 D) and high myopia (>5.0 D) were 16.2% and 2.1%, respectively. Approximately 2,140,000 adults in Nigeria would benefit from spectacles that improved their distance vision from < 6/12 to ≥6/12. There are no robust estimates for near vision loss due to presbyopia in Nigeria, but some estimates suggest it affects approximately 9.6 million adults of working age and above and is correctable for the majority with simple reading glasses which in many countries are not treated as a medical device and thus widely available. Refractive errors are correctable through improved access to spectacles. Most of the need could be met by low-cost, off-the-shelf spectacles. Current refractive services are provided by individual centres in public and private optical centres though

they are inadequate, mainly located in major cities and not properly integrated into existing eye care programmes. School screening is conducted in limited areas even though VISION 2020 identifies school eye health as the main strategy for early identification of refractive errors and eye conditions in children.

There are approximately 39,147,218 Nigerians 40 years and older, with a demographic shift towards a larger middle-aged population and an annual population growth rate of 4.39%.

Nigeria ranks 5th among the top ten countries with uncorrected presbyopia with a prevalence of 33%–53.5%. Uncorrected presbyopia has been shown to reduce human productivity and can hamper economic development. Due to high fertility rates in the past, an expanding cohort of middle-aged persons and advances in healthcare, the Nigerian middle age population is expanding, and presbyopia prevalence projected to increase significantly in the coming decades. A recent multistage, stratified, cluster random sampling showed that approximately 2,140,000 adults in Nigeria would benefit from spectacles that improved their vision, with more than a third of them requiring only low-cost, off-the-shelf spectacles.

### G. NEGLECTED TROPICAL DISEASES

Neglected Tropical Diseases (NTDs) are communicable diseases linked with poverty and prevalent in areas with poor sanitation, inadequate safe water supply and substandard housing conditions.

The NTDs are estimated to affect over one billion people in the world, majority of who are in the developing countries. These diseases include Lymphatic Filariasis, Onchocerciasis, Schistosomiasis, Soil Transmitted Helminths (STH), Human African Trypanosomiasis, Guinea Worm Disease, Trachoma, Leishmaniasis, Leprosy, Buruli Ulcer, Dengue fever, Rabies among others. These NTDs have been confirmed to be endemic in Nigeria. Together, NTDs debilitate, blind or maim; permanently curtailing human potentials and impairing economic growth. The control, elimination and eradication of the NTDs will be a major contribution to poverty alleviation and attainment of the Sustainable Development Goals (SDGs).

The Federal Ministry of Health has established structures to eliminate and eradicate these neglected

diseases in an integrated, cost-effective manner in collaboration with development partners and in line with relevant WHO Resolutions and Declarations.

### H. AGE- RELATED MACULAR DEGENERATION (ARMD)

Age- related macular degeneration is responsible for 1.8% of blindness in Nigeria. Visual loss from this condition is uncommon among persons under the age of 50, but its prevalence is likely to increase in absolute numbers globally as a consequence of population ageing. Health education of the public highlighting the risk factors for ARMD need to be improved and low vision aids used to manage visually affected patients need to be provided in all hospitals.

### I. DIABETIC RETINOPATHY



Diabetic retinopathy (DR) is a well-recognized complication of diabetes mellitus. The prevalence of diabetes in the national survey was 3.3% and 48% did not know they had diabetes. The prevalence of diabetic retinopathy was 20.5% among those diagnosed with diabetes and over 10% of people with diabetes aged  $\geq 40$  years had sight-threatening-DR. Persons with diabetes have 3 times greater odds of blindness. Diabetic retinopathy (DR) was identified as the primary cause of visual impairment in 0.29% of 3129 subjects with uncorrected VA worse than 6/12 and in 0.5% of those with acuity less than 3/60. It is responsible for 0.5% of blindness in Nigeria. The prevalence of DR is generally increasing as a result of a range of factors including population growth, ageing, urbanisation, dietary changes and the increase in obesity and sedentary lifestyles especially in urban dwellers. In more recent systemic review, the prevalence of diabetes in Nigeria is 5.8%.

### 2.2.2 Status of Eye Care in Nigeria

The National Health Policy in recognition of this made promotion and improvement of eye care services her priority in Nigeria through integrating eye care services into existing national health programmes, building capacity for eye care delivery at all levels, improving public awareness of eye care and strengthening the evidence base for eye care problems and care.

The vision of the National Eye Health Programme (NEHP) is to reduce the burden of visual impairment and avoidable blindness amongst the Nigerian populace. The development and adoption of the National Eye Health Policy in 2019 signals the commitment of the programme to move forward the agenda for universal eye care as it provides an over-arching and guiding policy document for all eye care in Nigeria and an interface for all eye care providers and stakeholders in eye care.

Since the development of the policy, activities are on-going to develop the strategic plan which will serve as a roadmap for implementing the policy.

There is a drive towards achieving universal eye care leveraging on the universal health coverage which will ensure access to affordable and quality eye care services by all and at all levels of care.

The WHO Primary Eye Care (PEC) Training manual for Trainers and Trainees has been domesticated and piloted in a bid to foster integration of PEC into PHCs, the major access point for health care for under-privileged Nigerians especially in the rural area. PHC under one roof (PHCUOR) and pro-poor financing mechanisms such as the basic healthcare provision fund (BHCPF) provides a unique opportunity for ensuring access to eye care. Furthermore,

the development of the National School Eye Care Implementation Guidelines in collaboration with the Federal Ministry of Education for the provision of eye care services to learners in schools; and teacher’s manual to guide easy identification of eye issues by teachers for referral to health centres and enhance access by children to early screening and referral of eye diseases will help in ensuring access to health care by different demographics.

Human Resource for Eye Health (HReH) is a critical element in ensuring equity and access to good quality eye care services. Studies conducted in-country have shown that there is lack of equity in the human resource for eye care with 4800 eye care work force comprised of 610 Ophthalmologists, (averaging 1:360,655 ); 3000 Optometrists, (averaging 1:51,667), 1323 Ophthalmic Nurses, (averaging 1:126,984); and 1855 Mid-level Eye care workers (averaging 1:90,566) most of whom are based in capital cities and urban areas. The zonal distribution reveals that that Northwest Zone has 40% of Nigeria’s eye care workforce while North East and South East Zones have the lowest of 9%. While task shifting and task sharing policies provide an opportunity to address these challenges, rivalries between professional groups and “turf protection” have made it difficult to implement. There is no HReH strategic plan to address competency-based, essential professional training and engagement, duties and distribution, and scheme of service according to relevant healthcare delivery levels and geographical distribution.

The tables below give a summary of the available personnel by state, employment and location.

#### Distribution of Ophthalmologists in Nigeria

SN	STATE	NUMBER AVAILABLE	NUMBER NEEDED	GAP	EMPLOYMENT PUBLIC OR PRIVATE	LOCATION URBAN RURAL
<b>NORTH CENTRAL</b>						
1	BENUUE	5	23	-18	5:0	4:1
2	KOGI	11	16	-5	4:0	2:2
3	KWARA	15	13	+2	12:3	14:1
4	NASARAWA	4	10	-6	15:1	15:1
5	NIGER	2	24	-22	2:0	1:1
6	PLATEAU	21	17	+4	16:5	21:0
<b>NORTH EAST</b>						
7	BORNO	3	23	-20	3:0	3:0



SN	STATE	NUMBER AVAILABLE	NUMBER NEEDED	GAP	EMPLOYMENT PUBLIC OR PRIVATE	LOCATION URBAN RURAL
8	BAUCHI	6	30	-24	5:1	4:2
9	GOMBE	5	14	-9	4:1	4:1
10	TARABA	2	13	-11	1:1	2:0
11	YOBE	1	13	-12	1:0	1:0
12	ADAMAWA	1	18	-17	1:0	1:0
	<b>NORTH WEST</b>					
13	ZAMFARA	2	21	-19	2:0	2:0
14	SOKOTO	10	23	-13	7:3	10:0
15	JIGAWA	0	27	-27	0	0
16	KADUNA	33	33	0	32:1	31:2
17	KANO	34	57	-23	34:0	33:1
18	KASTINA	4	37	-33	4:0	4:0
19	KEBBI	5	20	-15	5:0	5:0
	<b>SOUTH WEST</b>					
20	LAGOS	103	51	+52	57:46	83:20
21	OGUN	25	23	+2	17:8	13:12
22	ONDO	7	20	-13	6:1	3:4
23	OSUN	22	17	+5	20:2	9:13
24	OYO	52	30	+22	47:5	46:6
25	EKITI	6	13	-7	3:3	6:0
	<b>SOUTH SOUTH</b>					
26	RIVERS	18	28	-10	14:4	18:0
27	BAYELSA	1	9	-8	1:0	1:0
28	DELTA	23	21	+2	16:7	18:5
29	EDO	49	18	+31	44:5	32:17
30	AKWA IBOM	8	19	-11	7:1	6:2
31	CROSS RIVERS	7	16	-9	7:0	7:0
	<b>SOUTH EAST</b>					
32	IMO	16	20	-4	13:3	16:0
33	ABIA	6	15	-9	4:2	4:2
34	EBONYI	13	12	+1	11:2	12:1
35	ANAMBRA	16	22	-6	15:1	15:1
36	ENUGU	27	17	+10	25:2	20:7
37	FCT	42	11	+31	34:8	30:12
	<b>TOTAL</b>	<b>605</b>	<b>794</b>	<b>-189</b>		

\*Projected from 2020 population estimate from Nigerian Population Commission

**Distribution of Optometrists in Nigeria**

SN	STATE	NUMBER AVAILABLE	NUMBER NEEDED	GAP	EMPLOYMENT PUBLIC: PRIVATE	LOCATION URBAN RURAL
<b>NORTH CENTRAL</b>						
1	BENUUE	19	120	101	11/8	16/3
2	FCT ABUJA	213	358	145	48/165	177/36
3	KOGI	21	120	108	21/4	12/9
4	KWARA	15	32	17	13:2	15/0
5	NASARAWA	25	200	175	16/9	25/0
6	NIGER	15	56	41	NA	NA
7	PLATEAU	21	42	21	7/14	NA
<b>NORTH EAST</b>						
8	ADAMAWA	8	36	28	7/1	6/2
9	BAUCHI	9	65	56	9/0	8/1
10	BORNO	4	59	55	NA	NA
11	GOMBE	3	33	30	NA	NA
12	TARABA	2	31	31	NA	NA
13	YOBE	2	33	33	NA	NA
<b>NORTH WEST</b>						
14	JIGAWA	NA	23	23	NA	NA
15	KADUNA	38	120	82	34/4	37/1
16	KANO	22	131	109	13/9	NA
17	KATSINA	5	78	73	NA	NA
18	KEBBI	6	30	24	NA	NA
19	SOKOTO	12	50	38	NA	NA
20	ZAMFARA	7	200	193	7/0	6/1
<b>SOUTH EAST</b>						
21	ABIA	125	350	225	80/45	115/10
22	ANAMBRA	70	500	430	28/42	70/040
23	EBONYI	40	180	140	13/27	36/4
24	ENUGU	44	250	206	NA	NA
25	IMO	161	54	-107	49/112	NA
<b>SOUTH SOUTH</b>						
26	AKWA IBOM	95	220	125	20/75	95/0
27	BAYELSA	NA	23	23	NA	NA
28	CROSS RIVER	37	140	103	20/17	30/7
29	DELTA	17	23	6	14:3	14:0
30	EDO	182	480	268	60/122	157/25

SN	STATE	NUMBER AVAILABLE	NUMBER NEEDED	GAP	EMPLOYMENT PUBLIC OR PRIVATE	LOCATION URBAN RURAL
31	RIVERS	257	73	-184	20/237	NA
	<b>SOUTH WEST</b>					
32	EKITI	15	150	135	11/4	10/5
33	LAGOS	450	175	-275	30/420	NA
34	OGUN	42	150	108	11/31	33/9
35	ONDO	21	150	129	9/12	17/4
36	OSUN	20	47	27	9/11	13:0
37	OYO	30	78	48	6/22	26:0
	<b>TOTAL</b>	<b>2053</b>	<b>4860</b>	<b>2790</b>		
	NA=Not available					

\*Projected from 2020 population estimate from Nig Pop. Commission

**Distribution of Ophthalmic nurses in Nigeria**

SN	STATE	NUMBER AVAILABLE	NUMBER NEEDED	GAP
	<b>NORTH CENTRAL</b>			
1	BENUE	46	57	11
2	FCT ABUJA	79	36	-43
3	KOGI	47	45	-2
4	KWARA	61	32	-29
5	NASARAWA	58	25	-33
6	NIGER	70	56	-14
7	PLATEAU	65	42	-23
	<b>NORTH EAST</b>			
8	ADAMAWA	34	42	8
9	BAUCHI	61	65	4
10	BORNO	39	59	20
11	GOMBE	43	33	-10
12	TARABA	44	31	-13
13	YOBE	45	33	-12
	<b>NORTH WEST</b>			
14	JIGAWA	50	58	8
15	KADUNA	199	83	-116
16	KANO	103	131	28

SN	STATE	NUMBER AVAILABLE	NUMBER NEEDED	GAP
17	KATSINA	74	78	4
18	KEBBI	47	44	-3
19	SOKOTO	57	50	-7
20	ZAMFARA	33	45	12
	<b>SOUTH EAST</b>			
21	ABIA	21	37	16
22	ANAMBRA		55	55
23	EBONYI	31	29	-2
24	ENUGU	71	44	-27
25	IMO	47	54	7
	<b>SOUTH SOUTH</b>			
26	AKWA IBOM	42	55	13
27	BAYELSA	26	23	-3
28	CROSS RIVER	39	39	0
29	DELTA		57	57
30	EDO	45	42	-3
31	RIVERS	32	73	41
	<b>SOUTH WEST</b>			<b>0</b>
32	EKITI	19	33	14
33	LAGOS	177	175	-2
34	OGUN	51	52	1
35	ONDO	57	47	-10
36	OSUN	42	47	5
	<b>TOTAL</b>	<b>2010</b>	<b>1985</b>	<b>-25</b>

\*Projected from 2020 population estimate from Nig Pop. Commission

**Distribution of Ophthalmic nurses in Nigeria**

SN	STATE	NUMBER AVAILABLE	NUMBER NEEDED	GAP
	<b>NORTH CENTRAL</b>			
1	Benue	1	115	114
2	FCT Abuja	29	71	42
3	Kogi	2	89	87
4	Kwara	25	64	39
5	Nassarawa	1	50	49

SN	STATE	NUMBER AVAILABLE	NUMBER NEEDED	GAP
6	Niger	9	111	102
7	Plateau	6	84	76
	<b>North West</b>			
14	Jigawa	6	117	111
15	Kaduna	2	165	163
16	Kano	10	262	252
17	Katsina	3	157	154
18	Kebbi	15	89	74
19	Sokoto	0	100	100
	<b>South East</b>			
21	Abia	0	75	75
22	Anambra	5	111	106
23	Ebonyi	0	58	58
24	Enugu	4	89	85
25	Imo	14	108	94
	<b>South South</b>			
26	Akwa Ibom	5	110	105
27	Bayelsa	1	46	45
28	Cross River	1	77	76
29	Delta	20	113	93
30	Edo	10	85	75
31	Rivers	23	146	123
	<b>South West</b>			
32	Ekiti	4	65	61
33	Lagos	37	350	313
34	Ogun	19	104	85
35	Ondo	29	93	64
36	Osun	12	94	82
37	Oyo	14	157	143
	<b>Total</b>	<b>317</b>	<b>3970</b>	<b>3651</b>

\*Projected from 2016 population from Nig Pop. Commission

Quality systems are crosscutting in ensuring equity, patient safety and dignity and desired treatment outcomes. The development of treatment guideline for the delivery of standardised quality eye care and performance standards to measure the quality of child eye care services in Nigeria is a step towards assuring qualitative eye care services. The conduct of outreach surgical and screening eye camps by local and visiting groups which may help bridge the access gap are largely uncoordinated and unregulated and portends many ethical and quality assurance issues.

Implementation of the PEC is predicated upon a fully functional three tier health care system. Eye Health provision at the primary health care which is the gateway into the healthcare system is almost non-existent in the country as the health workers in these facilities are ill-equipped to identify common eye diseases and visual impairment. The drive to ensure that there is one primary health facility per administrative ward in the country is a welcome development but will not yield a positive improvement for eye care services if it is not aligned with the priority of the NSHDP II. This priority is around the health workforce available at this primary level are supported to provide promotive and preventative services, identify, treat or refer common eye diseases to the next level of the health care system.

Currently, the secondary level of care is not positioned to be able to take up the referral from the primary health care and also reduce the burden and access gap in the provision of curative eye care services such as cataract where the Cataract Surgical Rate (CSR – the number of cataract surgeries done per million populations per year), is low; estimated to range between 100 and 500 though may be a gross underestimate due to poor quality of data as opposed to WHO recommendation of a Cataract Surgical Rate (number of cataract operations per million of population per year) of at least 3000 for Africa. With an estimated over 2 million people needing cataract surgery in Nigeria, the secondary health facilities need to be upgraded and repositioned to provide these services.

Most of the Eye Care medicines are not on the Essential Medicine List and most eye interventions are covered by the National Health Insurance Scheme. There is one private institution involved in local production of eye drops. Provision of glasses is mainly through private retailers. A significant number of secondary and tertiary facilities do not have optical workshops. The few optical workshops are privately owned and cannot meet the demand to increase effective refractive error coverage by a 40%-point increase as required by the global targets for UHC in Nigeria.

Poor referral remains a major pitfall in attaining quality eye care especially at primary and secondary healthcare levels. The hub and spoke model which links PHCs to secondary health facilities

in most public health interventions are clearly lacking in eye care care due to the dearth of capacity and competence for eye health at these levels.

The NEHP funding from government has been inadequate, a situation replicated in most states and FCT. So far, most of its funding has been from indigenous and international partners. The implementation of the BHCPF provides a rather unique opportunity to advocate for inclusion of basic package of care for the major causes of avoidable blindness and vision loss.

Research, development and innovation remains the bedrock of sustainable eye care services. Whilst there is research being carried out by academic institutions and individuals, there is a disconnect between research and policy as most policies are not data driven. There is no research agenda, and no archive or repository for research on eye care in Nigeria. A research group has been formed by the FMOH and it is tasked with development of research priorities and agenda for eye health.

The NEHP has developed an inclusive National Eye care data collection and reporting tools disaggregated by disability (Visual, Hearing, Intellectual, Mental) in line with the Sustainable Development Goals, and an instructional manual to guide use in health care facilities. This has been integrated unto the District Health Information System 2.0 (DHIS 2.0) platform which is the National Health Management Information System (NHMIS).

### 2.2.3 National Eye Health Programme

There is a National Eye Health Programme (NEHP) Unit in the Department of Public Health, Federal Ministry of Health which coordinates activities and all matters relating to the prevention of blindness and visual rehabilitation. The main thrust of NEHP program areas is to facilitate good governance and coordination of eye care services focusing on the common causes of blindness and visual impairment, providing guidance on Human Resource for Eye Health (HReH) development as well as providing policy direction in the strategic development of eye care in the country. The following priorities were identified for the country:

1. Needs Assessment of eye care services
2. Development of the National Plan
3. Control of eye diseases
4. Development of eye care human resource plan
5. Provision and strengthening of eye care systems

#### Structure of the National Eye Health Program

The National Eye Health Programme is domiciled in the department of public health of the Federal Ministry of Health. The Programme is headed by the National Coordinator who is an ophthalmologist and reports to the Honorable Minister for Health. The Programme is supported by the National Eye Health

Committee in advisory capacity.

### National Eye Health Committee

The National Eye Health Committee (NEHC) is composed of key stakeholders in Eye health (government, professional bodies in eye care services, Blind Persons Association, WHO, Non-Governmental Development Organizations (NGDOs). The committee has a chairperson (a senior ophthalmologist), the Director of Public Health in the Federal Ministry of Health is a member, with the Vice Chairman who is usually the Chief Executive of the National Eye Centre, Kaduna. The National Secretariat is situated at the Federal Ministry of Health. The National Committee is expected to meet biannually.

### State Eye Health Programme

Eye health interventions at the State level should be implemented by State Eye Health Programmes in The Department of Public Health, overseen by a desk officer. The Programme is to be supported by the State Eye Health Committee in advisory capacity.

### State Eye Health Committees

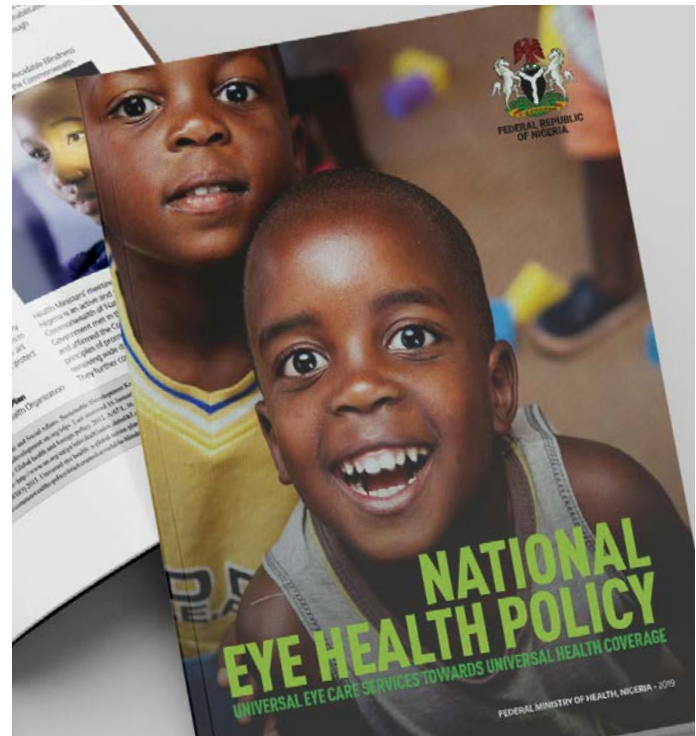
State Eye Health Committees have a critical role to play in the coordination and implementation of the Eye Health policy. Many states have established and functional State Eye Health Committees (SEHCs) in line with the recommendations of the FMOH while others are in the process of forming the committees.

## 2.2.4 National Eye Health Policy

The National Eye Health Policy 2019 is Nigeria's first comprehensive national eye care policy. Scaling up existing eye care services and developing a sustainable approach for achieving equitable access to quality and inclusive eye care can strengthen Nigeria's health system towards Universal Health Coverage. The National Eye Health Policy 2019 was developed within the context and in line with key national and international frameworks for eye care programme. This includes:

- The 1999 Constitution of the Federal Republic of Nigeria,
- The National Health Act 2014, The National Health Policy 2016,
- The second National Strategic Health Development Plan (NSHDP II) 2018-2022,
- Universal Eye Health (UEH) Global Action Plan (GAP) 2014-2019
- other relevant documents that relate to national and global health and developmental agendas.

The National Eye Health Policy 2019 framework/thrust addresses the challenges posed by the current situation and it reinforces the strengths while taking advantage of opportunities.



There are 10 policy thrusts:

- Leadership and Governance.
- Equity.
- Access - for all levels of primary, secondary and tertiary eye care.
- Quality systems.
- Health Facility Strengthening
- Referral system and network.
- Financing mechanisms.
- Research, development and innovation, including Health Management Information System for monitoring, evaluation and learning.
- Inter-sectoral collaboration.
- Partnerships.

This National Strategic Eye Health Development Plan is aligned with the National Eye Health Policy.

## 2.2.5 Eye Health System SWOT Analysis

The strengths, weaknesses, opportunities and threats of the eye health system were determined by the following processes:

1. Desk review of peer reviewed publications on the eye health system in Nigeria.
2. A stakeholder Self-administered questionnaire developed using the WHO Eye Care Situation Analysis tool (ECSAT) as a guide.

### Distribution of Optometrists in Nigeria

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Existence of the NEHSDP</li> <li>• Political Will</li> <li>• Governance Structure Available at national level</li> <li>• Reasonable number of competent professionals that can deliver comprehensive eye care services at different levels.</li> <li>• Existence of the NEHP</li> <li>• National eye care policy document</li> <li>• Presence of National eye care committee</li> <li>• Availability of manual for integration of PEC into PHC</li> <li>• Availability of some eye health infrastructure</li> <li>• Availability of NSHPD as a framework for this NEHSDP</li> <li>• Availability of the organized structure at the FMOH/NEHP</li> <li>• Existence of platform for stakeholders' collaboration</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate numbers of eye health care workers</li> <li>• Inequitable distribution of eye health care workers at all levels</li> <li>• Absence and nonfunctional governance structure in many states</li> <li>• Inadequate and inequitable distribution of facilities</li> <li>• Bureaucratic bottlenecks</li> <li>• Lack of reliable data for planning</li> <li>• Poor data management</li> <li>• Poor monitoring and evaluation</li> <li>• Inadequate and inequitable distribution of health and social services at all levels</li> <li>• Within existing insurance policy eye care diseases area not adequately catered for.</li> <li>• Eye care not fully integrated in to PHC across the country.</li> <li>• Interprofessional rivalry</li> <li>• Inadequacy of eye health Infrastructure</li> <li>• Nonexistence of adequate services at the PHC levels</li> <li>• Lack of finance both capital and recurrent.</li> <li>• Poor government involvement at sub national level</li> <li>• Poor budgetary allocation</li> <li>• Poor release of funds</li> <li>• Lack/Inadequate equipment.</li> <li>• Poor public eye care awareness</li> <li>• Poor salary and remuneration for health workers especially at Primary Health Care Level.</li> <li>• Nonexistence/poorly functioning state eye committee</li> <li>• Poor buy in at the state level.</li> <li>• Lack of an organized structure at state</li> <li>• Poor referral system (HIS)</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Opportunity for community participation and ownership</li> <li>• Strong Political will and support from the Federal government for eye care</li> <li>• Availability of over 40000 PHC centres across the country</li> <li>• Nigeria is a signatory to international treaties and organisations.</li> <li>• Programmes on eye care e.g. vision 2020, universal health coverage 2030.</li> <li>• Collaboration with all relevant bodies</li> <li>• Funding from foreign NGOs</li> <li>• NEHP</li> <li>• Partners willing to support eye health.</li> <li>• National and State health insurance scheme</li> <li>• Availability of basis health care provision fund</li> <li>• Availability of regional development funds e.g., NDDC and North East Development Funds.</li> <li>• Presence of willing support from NGOs.</li> <li>• Availability of training institutions.</li> <li>• Existing NGO-led small-scale programs in School Eye Health, outreach campaigns, or the CHWs to extend access to eye health services.</li> </ul>	<ul style="list-style-type: none"> <li>• Brain drain in the health sector.</li> <li>• Inadequate funding for eye care</li> <li>• Inadequate and inequitable distribution of infrastructure</li> <li>• Inter professional rivalry.</li> <li>• Wrong public perception</li> <li>• Poor literacy</li> <li>• Quackery</li> <li>• Lack of local content and dependence on importation -drugs, consumables.</li> <li>• Insecurity</li> <li>• Urban/Rural migration</li> <li>• Importation of substandard product</li> <li>• Poor implementation of policies by government.</li> <li>• Poor/epileptic power supply</li> </ul>



## 2.2.6 Strategic thrust of the National Eye Health Strategic Development Plan

### Leadership and Governance are the overarching

components, which provide a management structure towards achieving UHC. At the National level is the National Eye Health Coordinator, while at the state level, the desk officers provide leadership for implementation of eye health interventions.

Equity

### Vision Impairment, Blindness and Poverty

In Nigeria, blindness in poor households is twice as high as in the general population. People with glaucoma in poor households are four times more likely to be blind than those in affluent households. For every 100 poor blind women that needed cataract surgery, 75 remained blind because they could not pay for the surgery. Poor vision is a developmental issue; and it is associated with poverty within the vicious cycle of socioeconomic deprivation, poor access to eye care services, exposure to risk factors for blindness, reduced economic productivity and poor knowledge of eye diseases.

In order to control/reduce avoidable vision loss, there is a need to improve access to services, with more equity, fairness and justice, particularly among people with disabilities, the poor, the elderly, women and children, in tandem with the SDGs numbers 1 (no poverty), 5 (gender equality) and 10 (reduced inequalities) to achieve UHC.

### Access

Cataract is the leading cause of blindness followed by glaucoma. There are at least two million adults aged 40 years and above requiring cataract surgery in Nigeria; of which 650,000 are blind in both eyes. The cataract surgical rate (CSR) is the number of cataract surgeries done per million population per year. The national average is low at 317 (last reported in 2015). Nigeria needs a CSR of about 3000. Cataract surgical coverage (CSC), a monitoring indicator for UHC, is the percentage of people who receive cataract surgery among those who need it to restore their vision. Access to cataract surgery reflects access to healthcare by the elderly. In Nigeria, CSC was dismally low (41%). Blind persons, Persons with Vision Loss and other Persons with Disabilities often face transportation challenges and difficulty navigating existing health care clinics due to limited disability accommodations, lacking universal design and poor inclusive infrastructures within existing healthcare facilities. There is a need to enhance existing healthcare infrastructure to improve physical accessibility to persons with disabilities, particularly blind people, and people with vision loss and ensure equitable access to eye health services.

### Quality of Care

Generally, more concerted regulation needs to be in place to ensure quality systems, which include care outcomes, and performance monitoring.

There are some inappropriate care practice issues and socio-cultural beliefs that affect the quality of eye care given in Nigeria. One of such is couching, an unregulated, non-medical eye procedure effecting mechanical displacement of the lens using a sharp object. It is very common in Nigeria (43% of all cataract interventions) and associated with poor outcomes with over 70% of couched eyes being blind (VA<3/60).

### Strengthening the Health Facilities

Eye care delivery is largely facility-based with most surgeries performed in tertiary centres with outreach cataract surgical services. Few secondary centres have adequately equipped eye care units and even fewer primary healthcare centres (PHC) provide eye care services.

The human resources for eye health (HReH) are mainly within urban centres. It has been recommended that incentives be applied to change this existing state of HReH distribution.

In the past two decades, the active change in cataract surgical procedures towards use of intra-ocular lens (IOL) implant is associated with better vision outcome. The SSEHP had its fulcrum at the secondary level State hospitals, developing human resource capacity and infrastructural strengthening. However, despite these gains, there remains a backlog of un-operated cataracts, with three out of 10 of these having blinding cataracts. There is need to change the strategy of care to reflect current realities. The teaching hospitals are essential and have propelled eye care to what it is today. However, to scale up eye care service delivery towards achieving UHC, secondary level facilities need to be positioned and supported to be more efficient.

The spectrum of eye care provision should include eye care promotion, prevention and treatment services, case-finding systems and referral/feedback pathways, and vision rehabilitation support. It will be ideal to develop a secondary healthcare facility, which cares for approximately one-million-population, as a service delivery centre with a life course perspective to be the hub of the eye care delivery system that ensures access by all, especially in States with large populations.

### Referral System and Network

Poor Referral remains a major pitfall in attaining quality eye care especially at primary and secondary healthcare levels. Referrals from community and school-based service delivery also needs to be strengthened. With a carefully monitored an effective referral system in place, the optimal care at each level will be obtainable. It is also important to have a network

of health facilities where quality eye care is provided.

### **Financing Mechanisms**

A key element of UHC is that the patient does not suffer catastrophic financial hardship. But there are gaps in financing mechanisms for eye care in Nigeria with a heavy dependence on donor funding. The out-of-pocket expenditure (OOPE) for healthcare is about 73%, whereas WHO recommends less than 30% for OOPE. OOPE, a direct payment by the user (user fee) at the point of service, is the least appropriate method of health care financing. It restricts care as only those who have liquid funds can afford it.

The National Health Insurance Scheme (NHIS) administered by the National Health Insurance Authority has a poor coverage of about 5% of the Nigerian population, who are predominantly employees of the Federal Government under its formal sector social health insurance programme. This covers only the primary enrollee, spouse and four young dependents of the primary enrollee as direct beneficiaries. Additional children and elderly dependents such as parents of the primary enrollee are considered as extra and may be covered, but only with payment of additional contribution per extra dependent up to a maximum of four extra dependents. Whereas majority of those at risk of blinding eye diseases in need of eye care are the elderly and children. The NHIS voluntary contributor's social health insurance programme (VCSHIP) is an alternative scheme, which can be accessed by the elderly and pensioners through voluntary regular contribution. The NHIS scheme inadequately covers for optical, eye medical and surgical care.

The State Social Health Insurance Scheme (SSHIS) Bill has been passed into law by at least two-thirds of the State governments in Nigeria; and operational guidelines are in place. A few States already have enrollees accessing care.

### **Research, Development and Innovation**

Evidence-based research is transformative to practice and care delivery. Data enhance monitoring and evaluation for improvement in service sectors. But currently in Nigeria, there are no eye care service data being collected in a regular, systematic, and consistent manner across all levels of care. Thus, there is a need for accurate data collection, regulation, and monitoring mechanisms for improvement of eye care data with appropriate use of resources.

#### **Research Priorities for Eye Health in Nigeria**

The current landscape of research activities on Eye care in Nigeria is characterized by isolated research projects on various topics and there is a need for a centralized and unified national research

agenda on eye care.

### **Disease priorities**

The eye diseases and conditions that require urgent research focus on a national scale are the main causes of blindness and visual impairment, specifically: Cataract, Refractive errors, Glaucoma, Diabetic Retinopathy and Childhood blindness.

### **General research areas/topics**

The list of areas/topics for research with regards to the conditions above as well as blindness and visual impairment in Nigeria are as follows:

- Prevalence and causes of blindness and visual impairment at the national level.
- Health systems assessment and operational research on service delivery
- Human resources for eye health
- Options for financing eye care services and research
- Artificial intelligence, telemedicine and surgical simulation in Ophthalmology

Specific research areas/topics

#### **1. Cataract**

1. Epidemiology – Prevalence, risk factors/ determinants
2. Situational analysis of cataract services - including pattern of presentation (morphology, presenting complaints, systemic and ocular comorbidities), available human resources, surgical techniques, equipment, facilities and locations
3. Effective cataract surgical rates, cataract surgical coverage
4. Uptake of cataract surgical services
5. Pathogenesis and causes - genetics and epigenetics
6. Medical and alternative forms of treatment
7. Couching - prevalence, reasons for uptake, complications, outcomes (with +10)
8. Artificial intelligence and telemedicine in cataract-diagnosis, postoperative care
9. Development of clinical guidelines and protocols for cataract management
10. Health economics: Burden, Cost - Eye care financing, direct and indirect costs.
11. Social media and eye care - Place of social media
12. Effectiveness, outcomes and complication of different treatment options (quality of life, visual

and functional outcomes)

13. Cataract Surgery Outlay
14. Surgical simulation

## 2. Refractive errors

1. Prevalence of refractive errors at community level
2. Effective refractive error coverage
3. School eye health programs
4. Operational research on delivery of interventions for refractive errors
5. Quality of life after refractive interventions
6. Economic burden of uncorrected refractive errors

## 3. Glaucoma

1. Epidemiology – Community prevalence, risk factors/ determinants
2. Early detection of cases and causes of delayed diagnosis.
3. Situational analysis of glaucoma services – including pattern of presentation, available human resources, surgical techniques, equipment, facilities and locations
4. Pathogenesis – genetics and epigenetics
5. Medical and alternative forms of treatment
6. Artificial intelligence and telemedicine in glaucoma- diagnosis, postoperative care

7. Development of clinical guidelines and protocols for glaucoma management
8. Health economics research: Burden, Cost – benefit/ effectiveness of different intervention modalities- standalone and in comparison: medicine vs surgery vs laser; health insurance coverage
9. iSocial media and eye care - Place of social media
10. Surgical services – outcomes of different techniques (IOP control, quality of life: pre and post op)
11. Surgical simulation

## 4. Diabetic Retinopathy

1. Epidemiology- prevalence, risk factors, burden
2. Screening models- Identification, diagnosis and referral
3. Artificial intelligence and telemedicine in diabetic retinopathy
4. Development of national guidelines
5. Treatment- lasers and anti-VEGFs: outcomes of different options

## 5. Childhood blindness

1. Epidemiology: prevalence and causes of childhood blindness and visual impairment
2. New-born eye screening



3. Ocular morbidity and patterns of eye diseases in children
4. School eye health programs
5. Interventions and outcomes
6. Paediatric cataracts – pathogenesis, interventions, outcomes – short and long term

#### **6. Others**

1. Infectious eye diseases - trachoma, onchocerciasis, leprosy, HIV, TB, etc
2. Ocular trauma- Epidemiology, treatment protocol, outcomes

#### **Examples of specific research topics/ questions**

1. How can we improve the quality of our cataract surgeries?
2. Effectiveness and barriers to the implementation of school eye health services
3. Factors affecting access to glaucoma care.
4. Analysis of diabetic retinopathy services
5. Challenges of integrating diabetic retinopathy services with diabetes mellitus services
6. Challenges of visual rehabilitation services
7. Clinical trial on training methods for primary eye health
8. Strategies for effective eye healthcare financing
9. Developing and implementing an intuitive and contextual record collation system
10. Assessing the effectiveness of state eye healthcare coordinators
11. How do we improve political will for eye health in Nigeria?

#### **Action plans**

1. Systematic review on research priorities and questions.
2. Update important data on human and material resources – to include financing and infrastructure.
3. Establish a protocol for standardization of research in the three major causes of blindness and visual impairment.
4. Implement the protocol at national level, six geopolitical zones, states engage.
5. Coordinate and implement multiple RAABs across the country.

#### **• Inter-sectoral Collaboration**

There are important interfaces for inter-sectoral collaboration and policies (Federal and State Ministries, Departments and Agencies) to improve eye care and eye care service delivery. For example, Education, school health to incorporate eye care to enhance the child's learning and education; Transportation: road safety agencies to ensure vision tests; water and sanitation measures to improve prevention of infectious eye diseases such as trachoma. Likewise, linkages with global goals outside health will have a positive trend towards achieving some of the SDGs, addressing the broader development agenda.

#### **• Partnerships**

Collaboration in all spheres is a means of strengthening partnerships in order to achieve goals (SDG 17 – partnerships for goals). Strengthening existing partnerships and developing new partnerships and institutional links will enhance the continued development of strategies and services to improve equitable access and provision of quality eye care.



WISHING ALL  
**20:20**  
VISION FOR 2020

## Chapter 3

# National Eye Health Strategic Development Plan



### 3.1 Vision and Mission

**VISION:** Achieving Universal Eye Health (UEH) as a component of Universal Health Coverage (UHC) such that all people in Nigeria have optimal eye care are free from avoidable vision loss and blindness; and people with vision loss can develop their full potential in an equitable manner.

**MISSION:** To provide a framework for collective direction to scale up eye care delivery at all levels of health care service provision; providing an interface for all stakeholders to galvanize action for development in eye care.

### 3.2 Goal, Purpose and Objectives

**GOAL:** To develop a sustainable approach for promoting healthy eyes and good vision for all and achieving access to quality eye care; towards the elimination of avoidable blindness and vision loss.

**PURPOSE:** To improve eye care services including rehabilitation in order to achieve universal eye care coverage in Nigeria.

#### STRATEGIC OBJECTIVES

1. To strengthen governance and coordination of all stakeholders for effective eye care programme implementation towards achieving Universal Health Coverage.
2. To ensure that all Nigerians have equitable access to high quality sustainable and patient-centered eye care services.
3. To improve the quality assurance systems in the delivery of eye care services.
4. To ensure that at least 80% of health care facilities at all levels provide quality and affordable eye care services integrated within the health system
5. To strengthen referral system for integrated eye care delivery in the country.
6. To develop sustainable financing mechanisms for eye care
7. To generate reliable data for evidence-based decision

making for eye care

### 3.3 Strategies and interventions

1. The strategic thrust of the NEHSDP is built on the policy directives focusing on:
2. Integrating eye care services into existing national health programmes.
3. Building capacity for eye care delivery at all levels.
4. Improving public awareness of eye care.
5. Strengthening the evidence base for eye care problems and care.
6. Strengthening referral pathway for eye care.
7. Advocacy for improved funding for eye care at all levels of care.

**Objective 1:** To strengthen governance and coordination of all stakeholders for effective eye care programme implementation towards achieving Universal Health Coverage

This objective will focus on improving the programme structure at National and sub-National (State and LGA) levels and strengthen coordination between all eye care related MDAs and partners to be able to deliver on implementation of all eye care programmes with a view to achieving Universal Eye Health Coverage.

STRATEGY	BROAD ACTIVITIES
Scale up advocacy for eye care across the country.	Conduct advocacy at Federal and Sub-national levels for establishment of dedicated budgetary lines
	Increase in budgetary allocation for eye care at all levels.
	Conduct advocacy for employment and equitable distribution of the different cadres of eye care workforce in public health facilities
	Advocate for funding of eye care programme at the Sub-national level from different sources
	Advocacy to integrate eye health commodities in the Essential Medicines list
Domestication or adoption of National Eye Health policy by states	Distribution of the NEHP document to states
	Adopt the NEH Policy through state legislation
Support the implementation of the National Eye Health Strategic Development Plan at all levels	Train eye care workers on the development of State eye health strategic/operational plans
	Develop annual operational plans from the NEHSDP
	Conduct review on the level of implementation of the NEHSDP across states
	Produce and disseminate reports on implementation of eye care at federal and state levels.
Establish coordinating Mechanisms at subnational levels.	Set up and inaugurate Eye Health Committee for each state
	Set up and inaugurate Eye Health Committee for each LGA
	Appoint a Desk Officer for Eye Health at the sub-national level (State and Local Government)
	Strengthen partner's forum for eye health at national level
	Establish Partners' Forum for Eye Health at State Level
Foster inter/intra professional harmony amongst Eye care workers	Conduct joint celebration of global eye health days /World Sight days across the country
	Observe and celebrate all international eye health days and a new national Eye Health Day
	Participate in the celebration of World Diabetes Day

**Objective 2:** To ensure that all Nigerians have equitable access to high quality, sustainable and patient-centered eye care service. This objective will harness the demand and supply side of eye care to ensure that all Nigerians have unfettered access to eye care services leaving no one behind at every stage of the life course.

STRATEGY	BROAD ACTIVITIES
Ensure that all Nigerians have access to health insurance for eye care services..	Engage the NHIS on improving coverage of all eye care services/essential medicines in the health insurance scheme(s).
	Advocate for free/subsidized eye care services for vulnerable groups
	Advocate for the support of eye care programme by regional development commissions such as NDDC, NEDC
	Advocate for funding of eye care programme at the Sub-national level from different sources
Establish linkages for eye care	Facilitate the adoption of PHC Centre within same localities by secondary facilities at state level.
	Establish links between community/school and PHC facilities by establishing vision centres.
	Facilitate the establishment of rehabilitation services for eye care at the state level
	Develop framework for Public Private Partnerships in the provision of eye care services
	Work with NPHCDA to incorporate eye screening into national Community Health Influencers and Promoters' Scheme (CHIPS) to strengthen community diagnosis and referrals for eye care
	Leverage routine immunization outreach programmes to conduct community level screening and identification of beneficiaries for eyeglasses
	Setup mechanisms to ensure the support for eye care by NGOs in all states of the federation.
	Conduct advocacy for the establishment of inclusive education in at least one primary/secondary school in each LGA for the visually impaired
Capacity building for eye health workforce (EHWs)	Institute regular training and retraining of eye care workers at all levels. (with emphasis on management of primary eye care conditions and providing eye care services for persons with disabilities)
	Advocate for strengthening the eye care component in the training curriculum of schools of health technology (with emphasis on management of persons with disabilities)
	Advocate for enhanced training of EHWs on how to manage disabilities (blindness)
	Provide supervisory support for training institutions/ health facilities
	Engage regulatory bodies for the establishment of guidelines that incorporate mandatory CME for renewals of practicing licenses for eye care workers.
Institute Clinical Practice guidelines/ Standard Operating Procedures for Eye care services	Develop and implement standard operating procedures (SOPs) in eye care
	Develop and use SOP checklist
	Adapt and implement clinical practice guidelines in eye care
	Monitor implementation of SOPs/CPGs
Strengthen and support existing eye care facilities	Procure appropriate equipment for eye care at all levels
	Carry out routine maintenance of equipment and instrument
	Modelling/Re-modelling of health facilities for easy access for persons with disability (PWD) and senior citizens
	Establish at least one super specialist eye care centre in each geopolitical zone
Ensure the availability of eye medications, consumables, and optical products.	Develop an essential eye medicine, products, and consumable list for inclusion in the national essential drug list.
	Provide incentives for bulk purchasing of medicines, products and consumables.



STRATEGY	BROAD ACTIVITIES
	Expand distribution channels for reading glasses including private sector channels that are accredited to dispense
	Engage drug manufacturing companies for the local production of eye medicines, products and consumables
	Engage NAFDAC for priority approvals for importation and certification for production of eye medicines, consumables and products
	Engage relevant bodies for waivers on importation of eye equipment, medicines and consumables
Explore technology for eye care	Engage relevant bodies for the establishment of a committee on the deployment of technology for eye care at all levels
	Conduct a pilot on the use of telemedicine in the delivery of eye care in rural areas
	Scale-up the use of telemedicine in eye care service delivery
	Deploy evidence-based screening and referral m-Health solutions to connect all tiers of the health system
	Encourage the integration of proven e-health and m-health solutions in eye health
Establish cost recovery mechanisms in public eye care facilities	Train relevant health workers on financial management and supply chain mechanism.
Provide basic eye care services at the primary health care level	Engage relevant bodies for the inclusion of management of eye care disease in the minimum service package Basic Health Provision Fund (BHCPF) at the Primary health care level
	Facilitate a nationwide facility assessment/gap analysis of primary health care facilities for the integration of primary eye care
	Advocate for the recruitment/redeployment of health workers at PHC level
	Train general health workers in basic primary level eye care to include basic management and referral practices support-ed with required consumables, tools and oversight
Integrate eye care services into PHC	Advocate for the establishment of PEC in PHC
	Advocate for the establishment of minimum package of eye care in PHC
	Advocate for the inclusion of the minimum package for eye care in the basket of service of all health insurance schemes and BHCPF
	Advocate for the recognition of various HReH where they exist as primary eye care providers at PHC level
	Facilitate the development and circularization of Federal Government policy on the integration of eye care into primary health care.
	Engage subnational government on the incentives for eye care workers in rural communities
	Develop a PPP model where possible for ECWs to deliver eye care service in PHC facilities
Ensure the involvement of Communities in the development of eye plans at all levels	Foster participation in eye care services by communities across the country
	Train and engage the Ward Development Committees (WDC) in the development of eye care plans
Create demand for eye care services	Conduct periodic eye care awareness activities using existing social mobilization mechanisms in state and LGA
	Ensure the inclusion of eye care in the agenda at facility management meetings at all levels
	Engage public health departments for the inclusion of eye care messages in their routine social mobilisation activities
	Carry out public awareness campaign on the availability of eye care services in the country.
	Develop and distribute IEC materials on eye care.
	Establish/strengthen school eye health services for comprehensive screening, referral and management of eye conditions in school children

STRATEGY	BROAD ACTIVITIES
Scale up Eye care Promotion	Strengthen eye health services for persons with disability
	Engage relevant bodies for the inclusion of pre- employment eye tests in both the public and private sectors
	Engage the FRSC for standardization of screening tests for issuance of drivers' license
	Sensitization and awareness creation on the impact of harmful traditional practices (such as couching) through local so-cial mobilization mechanisms
	Promote Vitamin A supplementation
	Link screening of newborns for visual defect to the immunization programme
	Conduct regular eye exam for adults aged 40 years and above
	Conduct annual comprehensive eye exam for people with diabetes to allow for early detection and management of diabetic eye disease
	Conduct regular comprehensive medical evaluation of adults at risk of developing glaucoma
	Conduct vision screening at preschool (3-5 years) to detect visual impairment early

**Objective 3:** To improve the Quality Assurance systems in the delivery of eye care services.

Underpinning all service provision is the quality of the service. Therefore, this objective focuses on quality assurance in all eye care services.

STRATEGY	BROAD ACTIVITIES
Ensure the development of a quality improvement plan for all levels of eye care	Develop a quality improvement plan for Health facilities
	Train HCWs on QI at all levels
	Implement the QI plan
Institutionalize quality assurance in the delivery of Eye care	Conduct quarterly review meetings involving all Eyecare Professionals.
	Establish quality control units in all Eyecare centers
	Engage relevant regulatory bodies to strengthen and ensure the quality of medications, consumables and ophthalmic products throughout the supply chain
Development and Review of Standard Operating Procedures.	Ensure the use of SOPs/CPGs for all procedures
	Routine Maintenance and Recalibration of Ophthalmic Equipment.
Standardization of eye care services	Regular accreditation of all training programs in eye care
	Monitoring of routine eye care services
	Liaise with SON for regular oversight on eye care products/equipment
Transparency and accountability	Strengthen SERVICOM in all health facilities
	Establish a client feedback pathway in all facilities offering eye care
	Advocate for stringent oversight from eye care regulators

**Objective 4:** To ensure that at least 80% of health care facilities provide quality and affordable eye care services integrated within the health system.

This objective focuses on integration of eye health into the primary health care system thereby improving access at the grassroots with a hub and spoke approach ensuring linkage to the next level of care.

STRATEGY	BROAD ACTIVITIES
Provision of essential equipment at all levels of eye care	Advocate for increase funding for procurement
	Conduct a gap analysis for essential eye care equipment
Employment, training and retention of professionals in rural areas	Modify accessibility structures to enable access to persons with disabilities
	Advocate for waivers for imported ophthalmic equipment and consumables
	Advocate for community participation in retention of staff in underserved areas (identifying and training locals to provide eye care services within their communities)
	Advocate for rural allowance for HCWs in rural areas

**Objective 5:** To strengthen referral system for integrated EH delivery in the country.

This objective targets linkages through the health system from the primary to tertiary levels of care to improve quality of care.

STRATEGY	BROAD ACTIVITIES
Ensure a two-way referral pathway between the different levels of care (primary, secondary and tertiary).	Develop a guideline for referral at all levels
	Disseminate referral guidelines to states and facilities
	Train eye care workers including PHC workers on appropriate referral pathway
	Ensure infrastructure for cross referrals and patient tracking are established from community level and across the 3 tiers of health care
	Monitor compliance with guidelines through bodies such as SERVICOM and other regulatory bodies
	Utilize evidence-based software referral platforms to track and improve access to eye care and optimize care pathways based on data (such as Peek)

**Objective 6:** To develop sustainable financing mechanisms for Eye Health.

This objective focuses on ensuring sustainable financing of eye care through cost recovery mechanisms, improved government funding, Public-Private Partnerships and health insurance.

STRATEGY	BROAD ACTIVITIES
Establish effective cost recovery mechanisms	Integrate eye care consumables/spectacles (bulk purchasing etc) into general DRF
	Ensure private sector health insurance (including eye health packages) for workers
	Support public-private partnerships to increase supply of reading glasses to match demand and increase affordability
	Advocate for funding of eye care programme at the Sub-national level from different sources
Establish effective models and mechanisms that encourage and support local production of optical equipment and essential medicines.	Simplify existing regulatory mechanisms and approval processes for establishing Eye wear manufacturing and pharmaceuticals.
	Offer tax incentives and subsidies, to investors involved in the production of optical equipment and eye medicines

STRATEGY	BROAD ACTIVITIES
Capacity building for eye health workforce (EHWs)	Improve on eye care operational planning to inform budget
	Advocacy for resource and funds mobilisation
	Ensure efficient allocation of funds for the integration of Primary Eye Care through a decentralized process (e.g., the BHCPF)
	Advocacy to government to increase funding for eye care at all levels
Improving access to EH services through financing schemes	Ensuring essential eye care is in all benefit packages in all insurance schemes
	Appraise and ensure insurance schemes and programs providing coverage and support for persons living with disabilities (PLWDs) are functional and include primary eye care services
	Simplify processes for PLWDs to access financing schemes covering eye health services
	Sensitise the public to achieve increased enrolment into health insurance schemes

**Objective 7:** To generate reliable data for evidence-based decision making for eye care.

Evidence informed decision is the bedrock of adequate planning. This objective, therefore, focuses on generating good quality data via the academia, research institutions and providing a platform where researchers and policy makers can interact to ensure data demand. It also focuses on ensuring that routine eye care data is linked with the national instance (DHIS 2).

STRATEGY	BROAD ACTIVITIES
Advocate for improved funding for research	Develop a research committee on eye care
	Establish a research agenda for eye care
	Source for grants for eye care research
Establish a forum for Researcher-policy maker dialogue	Establish an annual research fair on eye care
	Create demand for evidence through policy dialogues
Prioritize Data Analytics and use	Develop and Define Key Performance Indicators (KPI) and metrics to track progress, measure the effectiveness, and evaluate the impact of primary eyecare service integration.
	Use data to continually assess and improve the eyecare pro-gram
Standardization of eye care services	Commission Blindness and visual impairment survey (RAABs and other population-based surveys)
	Collate and analyse relevant existing data (including routine service delivery data) for eye care
Optimize National data tools and collection process for eye care.	Review and align eye care data collection tools
	Disseminate the tool country-wide
	Train M&E officers on the use of the tools
	Print and disseminate registers
Integrate eye care information into the general health information management system at all levels of health care	Advocate for the operationalization of DHIS 2 to receive eye care data
	Ensure that all levels of eye care service provision are cap-tured on the DHIS 2 platform
	Ensure that all levels of eye care service provision are re-ported on the DHIS 2 platform

# Chapter 4

## Coordination and Implementation



### 4.1 Coordination and Implementation Process

#### 4.1.1 Implementation Arrangement

This National Eye Health Strategic Development Plan (NEHSDP 2024 – 2028) will be implemented through the existing health system structures at the facility and community levels and with reference to the guiding principles and the priorities of the

National Health Strategic Development Plan, 2018 – 2022, and the National Eye care Policy focusing on Universal Eye Care Services towards Universal health Coverage.

The need for multi-stakeholder and multisectoral coordination and collaboration at the Federal, State, LGA, and Community levels to deliver on the priorities of this plan has been highlighted at every stage of the plan development process. Many of the strategies and the broad activities of this NEHSDP can only be achieved through mandate alignment with

Ministries, Departments and Agencies with the responsibility and requirements to provide such services or create an enabling environment to do same.

The bilateral and multilateral agencies, Implementing Partners, Civil Society groups, Research Institutions, Academia and the private sector must align their support to the strategies and priority activities of this plan and contribute to the achievement of the goal and objectives of the NEHSDP.

While National Eye Health Programme domiciled in the Public Health Department of the FMOH and Federal MDAs provide policy and guidelines for key eye care strategies, implementation will be integrated and decentralised to the States and the LGAs, managed by the State Eye care Committees (SEHCs), the State Primary Health Care Development Agencies (SPHCDA), Hospital Management Boards (HMBs), State Health Insurance Schemes, LGA focal persons, PHC facilities, private health facilities and community health workers.

The implementing partner of the NEHP is the National Eye Centre, Kaduna. The centre is empowered by decree No. 52 of 1979 to provide the full spectrum of eye care services, training of personnel and research. In line with this, the centre will collaborate with the NEHP in programme implementation, training of human resources for eye care, research and governance. The Chief Medical Director will statutorily be a member of the National Eye Health Committee as Vice Chair. For ease of programme implementation and on approval of its board, the NEC might offer technical support through skill transfer and service delivery in regional hubs.

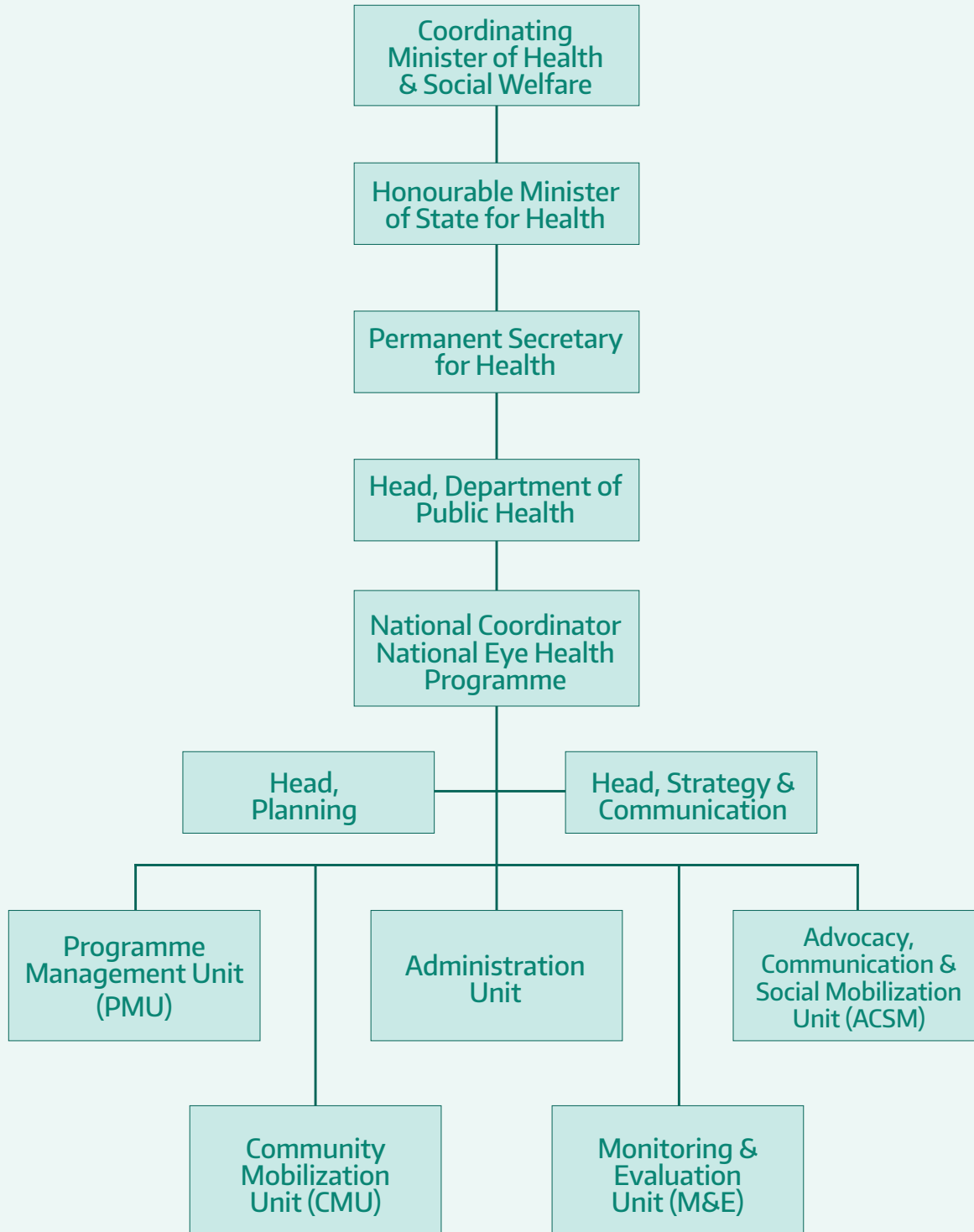
The implementation of the NEHSDP will be guided by the following guiding principles.

- **Multi-stakeholder and Multisectoral Approach:** Successful implementation of the NEHSDP Strategies and priority actions will most times require the involvement of actors from different NEHP, departments of FMOH and other line Ministries and Agencies e.g., Family Health, NPHCDA, SPHCDA, NHIA, SHIS and Private Sector among others.
- **Human Rights, Gender, and Equity:** High priority must be given to the vulnerable populations (children, persons with disability, elderly, IDPs, etc) to ensure inclusiveness throughout the life course.
- **Efficiency:** The use of available and prospective resources reflect efficiency in allocation and at programmatic level to ensure value for money.
- **Mechanisms for Performance Tracking;** NEHP and

Partners should of necessity establish and operationalise mechanisms for tracking implementation progress, expenditure, commodities, etc.

- **Strengthened Integration and Collaboration:** Eye care processes should be clearly defined, and responsibility allocated based on task shifting and task sharing policies in the country with the sole aim of ensuring universal access to eye care.
- **Leveraging the Primary Health Care:** Sub-national level implementation of eye care related activities may require using the already available PHC infrastructure and schools to deliver eye care to all citizens by ensuring integration of eye care into PHC and strengthening referral system across the tiers of health care delivery.
- **Risk Management:** The risks and assumptions around eye care programme implementation should be predicted and mitigated.
- **Aid Effectiveness:** Eye care partners in Nigeria must align their support towards country's priorities, ensure harmonisation and joint management for results. There should be mutual accountability.

# Nation Eye Health Programme Organogram



## 4.1.2 Implementation Plan

**Objective 1:** To strengthen governance and coordination of all stakeholders for effective eye care programme implementation towards achieving Universal Health Coverage (X=Unknown Value)

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
Scale up advocacy for eye care across the country.	Conduct advocacy at Federal and Sub-national levels for establishment of dedicated budgetary lines and increase in budgetary allocation for eye care at all levels.	x	x				NEHP ACSM unit
	Conduct advocacy for employment and equitable distribution of the different cadres of eye care workforce in public health facilities	x	x	x			NEHP SEHC
	Advocate for funding of eye care programme at the Sub-national level	<b>X</b>	x	x	x	x	NEHP Partners
	Advocacy to integrate eye health commodities in the Essential Medicines list	x	x	x			NEHP ACSM
	Advocate for state legislation on Eye care	x					NEHP SEHC
Domestication or adoption of National Eye care policy by states	Distribution of the NEHP document to states	x					NEHP PMU
	Adopt the NEH Policy through state legislation	x					NEHP SEHC
Support the implementation of the National Eye care Strategic Plan at all levels	Train Eye care workers on the development of State Eye care Strategic/Operational Plans	x	x	x	x	x	NEHP PMU
	Develop annual operational plans from the NEHSDP	x	x	x	x	x	NEHP
	Conduct review on the level of implementation of the NEHSDP		x			x	NEHP M&E
	Produce and disseminate reports on implementation of eye care at federal and state levels.		x			x	NEHP M&E SEHC M&E
Establish coordinating Mechanisms at subnational levels	Set up and inaugurate Eye care Committee for each state	x					NEHP
	Set up and inaugurate Eye care Committee for each LGA	x	x				SEHC
	Appoint a Desk Officer for Eye care at the sub-national level (State and Local Government)	x					SEHC State Civil Service Commission
	Establish a Partners Forum for Eye care at State Level	x					SEHC
Foster inter/intra professional harmony amongst Eye care workers	Conduct joint celebration of eye care days World Sight days across the country	x	x	x	x	x	NEHP SEHC
	Facilitate the conduct of annual eye care summit at state levels	x	x	x	x	x	SEHC
	Observe and celebrate the national Eye care Day						NEHP. SEHC



**Objective 2:** To ensure that all Nigerians have equitable access to high quality, sustainable and patient-centered eye care service

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
Ensure that all Nigerians have access to health insurance for eye care services.	Engage the NHIS on improving coverage of all eye care services/essential medicines in the health insurance scheme(s).	x	x	x	x	x	NEHP Minister of Health
	Advocate for the increase in enrolment into the Basic Health Care Provision Fund (BHCPF) through enrolment into state contributory schemes/ NHIS/ PHCDA	x	x	x	x	x	NEHP Minister of Health
	Advocate for free/subsidized eye care services for vulnerable groups	<b>x</b>	x	x	x	x	NEHP
	Advocate for the increased public awareness to encourage acceptance of health insurance schemes by the informal sector at national and subnational levels	x	x				NEHP Min of Information National Orientation Agency (NOA)
	Advocate for the support of eye care programme by regional development commissions such as NDDC, NEDC	x	x	x	x	x	NEHP FMOH
Establish linkages for eye care	Facilitate the adoption of PHC Centre within same localities by secondary facilities at state level.	x	x				State MoH SEHC
	Establish links between community/school and PHC facilities by establishing vision centres.	x	x	x	x	x	NEHP PMU State MOH
	Train Eye care workers on the development of State Eye care Strategic/Operational Plans	x	x				NEHP PMU
	Develop annual operational plans from the NEHSDP	x	x				NEHP PMU
	Conduct review on the level of implementation of the NEHSDP	x	x				NEHP PMU
	Produce and disseminate reports on implementation of eye care at federal and state levels.	x	x				SEHP ACSM unit
Capacity building for eye care workforce	Institute regular training and retraining of eye care workers at all levels.	x	x	x	x	x	NEHP PMU
	Advocate for strengthening the eye care component in the training curriculum of schools of health technology and train mid-level ophthalmic personnel	x					NEHP PMU
	Provide support for training institutions/ health facilities	x	x	x	x	x	NEHP PMU
	Engage regulatory bodies for the establishment of guidelines that incorporate mandatory CME for renewals of practicing licenses for eye care workers.	x					NEHP PMU SEHP
Institute Clinical Practice guidelines/ Standard Operating Procedures for Eye care services	Develop and implement standard operating procedures (SOPs) in eye care	x					NEHP PMU
	Develop and use SOP checklist	x					NEHP PMU

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
	Adapt and implement clinical practice guidelines in eye care	x					NEHP PMU
	Monitor implementation of SOPs/CPGs	x	x	x	x	x	NEHP M&E unit
Strengthen and support existing eye care facilities	Procure appropriate equipment for eye care at all levels	x	x	x	x	x	FMOH
	Carry out routine maintenance of equipment and instrument in Government owned facilities	x	x	x	x	x	FMOH
	Modelling/Re-modelling of health facilities for easy access for PLWD and senior citizens	x	x	x	x	x	FMOH, NEHP PMU
	Establish at least one super specialist eye care centre in each geopolitical zone	x		x			FMOH, NEHP PMU
Ensure the availability of eye medications, consumables, and optical products	Develop an essential eye medicine and consumable list for inclusion in the national essential drug list	x	x				NEHP PMU
	Provide incentives for bulk purchasing of medicines and consumables	x	x				FMOH, NEHP PMU
	Engage drug manufacturing companies for the local production of eye medicines and consumables	x					NEHP ACSM unit
	Expand distribution channels for reading glasses including private sector channels that are accredited to dispense	x	x	x	x	x	FMOH, NEHP CMU
	Engage NAFDAC for approvals for importation of eye medicines, consumables and optical products	x					NEHP ACSM unit
	Engage NAFDAC for approvals for certification of production of eye medicines, consumables and optical products	x					NEHP ACSM unit
	Engage relevant bodies (Customs, Nigeria Ports Authority) for waivers on importation of eye equipment, medicines and low vision products and consumables	x					FMOH, NEHP ACSM unit
Explore technology for eye care	Engage relevant bodies for the establishment of a committee on the deployment of technology for eye care at all levels	x					NEHP PMU
	Conduct a pilot on the use of telemedicine in the delivery of eye care in rural areas	x					NEHP PMU
	Encourage the integration of proven e-health and m-health solutions in eye health	x	x	x			NEHP PMU, M&E
	Scale-up the use of telemedicine in eye care service delivery		x	x			NEHP PMU
Establish cost recovery mechanisms in public eye care facilities	Train relevant health workers on financial management and supply chain mechanism.	x	x				NEHP PMU
Provide basic eye care services at the primary health care level	Engage relevant bodies for the inclusion of management of eye care disease in the minimum service package Basic Health Provision Fund (BHCPF) at the Primary health care level.	x	x				NEHP ACSM unit

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
	Facilitate a nationwide facility assessment/ gap analysis of primary health care facilities for the integration of primary eye care	x	x				NEHP M&E unit
	Advocate for the recruitment /redeployment of health workers at PHC level	x					NEHP ACSM unit
Integrate eye care services into PHC	Advocate for the establishment of minimum package of eye care in PHC	x					NEHP ACSM unit
	Advocate for the inclusion of the minimum package for eye care in the basket of service of all health insurance schemes and BHCPF	x	x				NEHP ACSM unit
	Advocate for the recognition of various HReH (especially mid-level ophthalmic personnel) where they exist as primary eye care providers at PHC level I	x					NEHP ACSM unit
	Facilitate the development and circularization of Federal Government policy on the integration of eye care into primary health care.	x					NEHP PMU
	Engage subnational government on the incentives for eye care workers in rural communities	x					FMOH
	Develop a PPP model for ECWs to deliver eye care service in PHC facilities	x	x				NPHCDA NEHP PMU
Ensure the involvement of Communities in the development of eye plans at all levels	Foster participation in eye care services by communities across the country	x					NEHP CM unit
	Train and engage the Ward development committees (WDCs) in the development of eye care plans	x	x	x			NEHP ACSM unit
Create demand for eye care services	Conduct periodic eye care awareness activities using existing social mobilization mechanisms in state and LGA	x	x	x	x	x	SEHP ACSM unit
	Ensure the inclusion of eye care in the agenda at facility man-agement meetings at all levels	x	x				SEHP SPHCB
	Engage public health departments for the inclusion of eye care messages in their routine social mobilisation activities	x					NEHP; SEHP ACSM unit
	Carry out public awareness campaign on the availability of eye care services in the country.	x	x	x	x	x	NEHP CM unit
	Develop and distribute IEC materials on eye care.	x	x	x	x	x	NEHP ACSM unit
Scale up Eye care Promotion	Establish/strengthen school eye care services including the pre-admission vision test requirement for all learners	x	x	x	x	x	FMOH, Min of Education NEHP
	Engage relevant bodies for the inclusion of pre-employment eye tests in both the public and private sectors	x					Min of Labour NEHP ACSM unit
	Engage the FRSC for standardization of screening tests for issuance of driver's license	x	x				NEHP ACSM unit FRSC

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
	Sensitization and awareness creation on the impact of harmful traditional practices (such as couching) through local social mobilization mechanisms	x	x	x	x	x	NEHP ACSM unit
	Promote Vitamin A supplementation	x	x	x	x	x	FMOH, NEHP NAFDAC
	Link screening of newborns for visual defect to the immunization programme	x	x	x	x	x	Family Health FMOH, National Immunization Program, NEHP

**Objective 3:** To improve the Quality Assurance systems in the delivery of eye care services

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
Ensure the development of a quality improvement plan for all levels of eye care	Develop a quality improvement plan for Health facilities	x					NEHP PMU
	Train HCWs on QI at all levels	x	x	x	x	x	NEHP PMU
	Implement the QI plan	x	x	x	x	x	NEHP; SEHP PMU
Institutionalize quality assurance in the delivery of Eye care	Conduct quarterly review meetings involving all Eyecare Professionals.	x	x	x	x	x	NEHP PMU
	Establish quality control units in all Eyecare centers	x	x	x	x	x	NEHP PMU
Development and Review of Standard Operating Procedures.	Ensure the use of SOPs/CPGs for all procedures	x					NEHP PMU
	Routine Maintenance and Re-calibration of Ophthalmic Equipment.	x	x	x	x	x	NEHP PMU
Standardization of eye care services	Regular accreditation of all training programs in eye care	x	x	x	x	x	FMOH; Regulatory bodies
	Monitoring of routine eye care services	x	x	x	x	x	NEHP M&E unit
	Liaise with SON for regular oversight on eye care products/equipment	x	x	x	x	x	NEHP PMU
Transparency and accountability	Strengthen SERVICOM in all health facilities	x					FMOH
	Establish a client feedback pathway in all facilities offering eye care	x					NEHP
	Advocate for stringent oversight from eye care regulators	x					NEHP ACSM unit, Regulatory bodies

**Objective 4:** To ensure that at least 80% of health care facilities provide quality and affordable eye care services integrated within the health system

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
Provision of essential equipment at all levels of eye care	Advocate for increase funding for procurement	x					NEHP
	Conduct a gap analysis for essential eye care equipment	x					NEHP M&E unit
Employment and retainment of Professionals in Rural areas	Modify accessibility structures to enable access to persons with disabilities						
	Advocate for community participation in retention of staff in underserved areas	x	x				NEHP ACSM unit
	Advocate for rural allowance for HCWs in rural areas	x					FMOH; Min of Budget and Planning; salaries and wages commission
	Define task shifting and task sharing for Health Care workers in delivering PEC and rehabilitative eye services in communities						

**Objective 5:** To strengthen referral system for integrated EH delivery in the country

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
Ensure a two-way referral pathway between the different levels of care (primary, secondary and tertiary).	Develop a guideline for referral at all levels	x					FMOH; NEHP
	Disseminate referral guidelines	x	x				NEHP
	Train eye care workers on appropriate referral pathway	x	x	x			NEHP PMU
	Monitor compliance with guidelines	x	x	x	x	x	FMOH; NEHP M&E
	Ensure infrastructure for cross referrals and patient tracking are established from community level and across the 3 tiers of health care						FMOH; NEHP PMU, M&E
	Utilize evidence-based software referral platforms to track and improve access to eye care and optimize care pathways based on data (such as Peek)	x	x	x	x	x	FMOH; NEHP PMU, M&E
	Monitor compliance with guidelines through bodies such as SERVICOM and other regulatory bodies						NEHP PMU

**Objective 6:** To develop sustainable financing mechanisms for EH

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
Establish effective cost recovery mechanisms	Integrate eye care consumables/spectacles (bulk purchasing etc) into general DRF	x					NEHP
	Support public-private partnerships implementing sustainable financing models						
Establish effective models and mechanisms that encourage and support local production of optical equipment and essential medicines.	Simplify existing regulatory mechanisms and approval processes for establishing Eye wear manufacturing and pharmaceuticals.	x	x	x			FMOH; Regulatory bodies NEHP ACSM, PMU
	Offer tax incentives and subsidies, to investors involved in the production of optical equipment and eye medicines	x	x	x			FMOH, Regulatory tax bodies like FIRS and Customs
Ensure a specific budget line for eye care at all levels - Prioritise EH in budgeting	Improve on eye care operational planning to inform budget	x	x				NEHP PMU
	Advocacy for improved Budget Execution Rate, timely resource and funds mobilisation	x	x	x	x	x	NEHP ACSM unit
	Ensure efficient allocation of funds for the integration of Primary Eye Care through a decentralized process (e.g., the BHCPF)	x	x	x	x	x	FMOH, NEHP ACSM, NPHCDA, SPHCB
	Advocacy to government to increase funding for eye care at all levels	x	x				NEHP; donors
Improving access to EH services through financing schemes	Ensuring essential eye care is in all benefit packages in all insurance schemes	x					NEHP ACSM unit. NHIA; SHIS
	Appraise and ensure insurance schemes and programs providing coverage and support for persons living with disabilities (PLWDs) are functional and include primary eye care services	x	x	x	x	x	NEHP ACSM, PMU unit. M&E Unit NHIA; SHIS
	Simplify processes for PLWDs to access financing schemes covering eye health services	x	x	x			NEHP ACSM unit. NHIA; SHIS
	Sensitize the public to achieve increased enrolment into health insurance schemes	x	x	x			NEHP CMU, ACSM unit
	Sensitize PLWDs on existing financial schemes for eye care and communicate simple pathways to access financing schemes and primary eye health services	x	x	x			NEHP CMU, ACSM unit. NHIA; SHIS NPHCDA, SPHCB
	Sensitize the public to achieve increased enrolment into health insurance schemes	x	x	x	x	x	NEHP ACSM unit

**Objective 7:** To develop sustainable financing mechanisms for EH

STRATEGY	BROAD ACTIVITY	IMPLEMENTATION TIMELINE					RESPONSIBLE
		2024	2025	2026	2027	2028	
Advocate for improved funding for research	Develop a research committee on eye care	x					NEHP
	Establish a research agenda for eye care	x					NEHP steering committee
	Source for grants for eye care research	x	x	x	x	x	NEHP; Academia
Establish a forum for Researcher-policy maker dialogue	Establish an annual research fair on eye care	x	x	x	x	x	NEHP PMU
	Create demand for evidence through policy dialogues	x	x	x	x	x	NEHP PMU
Prioritize Data Analytics and use	Develop and Define Key Performance Indicators (KPIs) and metrics to track progress, measure the effectiveness, and evaluate the impact of primary eye care service integration.	x	x	x	x	x	NEHP M&E unit
	Use data to continually assess and improve the eye care program	x	x	x	x	x	NEHP M&E unit
Generate data for informed decision making	Commission Blindness and visual impairment survey (like RAABs and other population-based surveys)	x	x	x			NEHP M&E unit
	Collate and analyze relevant existing data for eye care	x					NEHP M&E unit
	Create multiple platforms for country decision-makers to access and utilize big data effectively	x	x	x			FMOH, DPHRS NEHP M&E
Generate and collect eye care data routinely	Review and align eye care data collection tools			x			NEHP M&E unit
	Disseminate the tool country-wide	x	x	x	x	x	NEHP
	Train M&E officers on the use of the tools	x	x	x	x	x	NEHP M&E unit
	Print and disseminate registers	x			x		NEHP PMU
Integrate eye care information into the general health information management system at all levels of health care	Advocate for the operationalization of DHIS 2 to receive eye care data	x					NEHP PMU and M&E units
	Ensure that all levels of eye care service provision are captured on the DHIS 2 platform	x	x				NEHP M&E unit
	Ensure that all levels of eye care service provision are reported on the DHIS 2 platform	x	x	x	x	x	NEHP M&E unit

**4.1.3 Partnership Coordination System**

Will involve meetings and various forms of communication to provide an interface between the NEHP and its partners, to bring them up to speed on the activities of the ministry, policies and guidelines. The expected outcomes include:

1. Strength partnership, coordination and collaboration for seamless implementation of eye care programmes in

Nigeria.

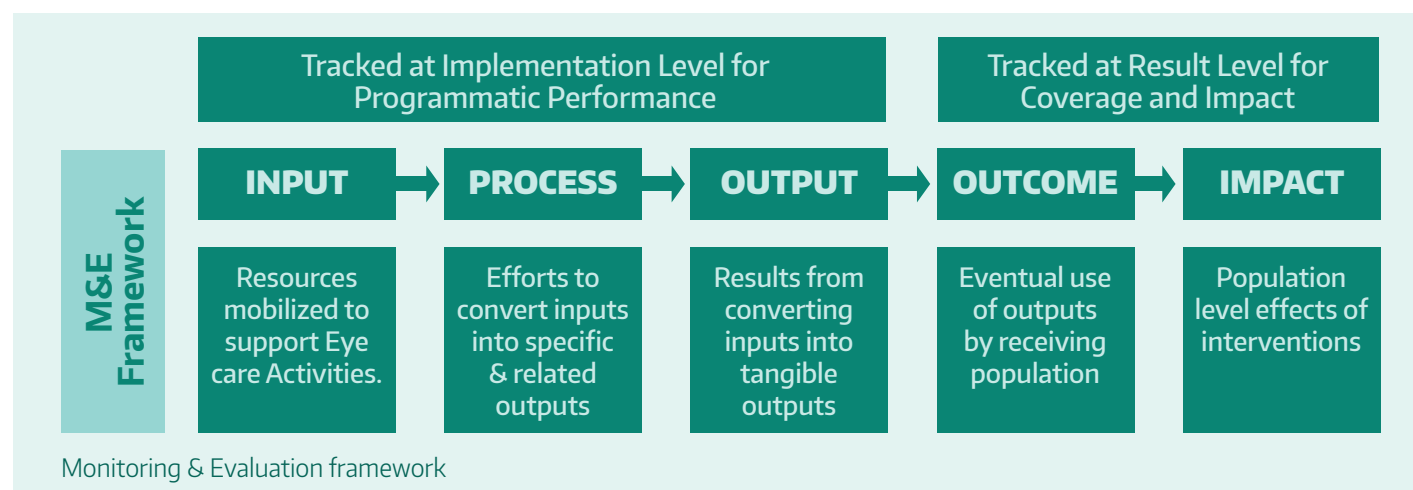
2. Prevent duplication of efforts and ensure judicious use of resources for the people of Nigeria.
3. To ensure all interventions at all levels align with the national priorities and meet the needs of the citizenry.
4. Learning, to share experiences, knowledge and ideas

### 4.1.4 Risk Management and Mitigation

RISK CATEGORY	KEY RISK	MITIGATION ACTIONS
Inadequate Funding	<ul style="list-style-type: none"> <li>Poor allocation of resources for eye health</li> <li>Budget cuts</li> <li>Delayed release of budgeted funds</li> <li>Misapplication of released funds</li> </ul>	<ul style="list-style-type: none"> <li>Advocacy to Government for increase allocation to Eye Health</li> <li>Advocacy to ensure all appropriated funds are released.</li> <li>Early release and tracking of budget.</li> <li>Establish appropriate internal control mechanisms and ensure timely financial reporting.</li> </ul>
Capacity for Plan Implementation	<ul style="list-style-type: none"> <li>Retention of competent human resources</li> <li>Lack of appropriate infrastructure, tools and equipment</li> <li>Poor Human Resource Management</li> </ul>	<ul style="list-style-type: none"> <li>Continuous training and retention of competent staff</li> <li>Advocacy for provision and maintenance of appropriate infrastructure, tools and equipment</li> <li>Institutional mechanisms for reward and sanctions</li> </ul>
Coordination and collaboration	<ul style="list-style-type: none"> <li>Weak Federal level collaboration and coordination between tiers of government</li> </ul>	<ul style="list-style-type: none"> <li>Ensure mandate alignment and collaboration.</li> <li>Implement the Coordination Framework</li> </ul>
Monitoring and Supervision	<ul style="list-style-type: none"> <li>Vertical uncoordinated monitoring and supervision</li> </ul>	<ul style="list-style-type: none"> <li>Develop Integrated Supportive Supervision Plan with implementing partners (IPs)</li> <li>Strengthen and support state level stakeholders to conduct periodic integrated supportive supervision (ISS) and reporting.</li> <li>Period Plan Reviews</li> </ul>
Private Sector	<ul style="list-style-type: none"> <li>Private sector buy-in and participation.</li> <li>Private Sector Data</li> </ul>	<ul style="list-style-type: none"> <li>Establish a PPP unit and implement a robust PPP strategy.</li> <li>Include private sector health facilities (HFs) in M&amp;E plan implementation</li> </ul>

## 4.2 Monitoring and Evaluation

Progress in the implementation of the strategic objectives of this plan will be tracked at programmatic level and at result level to measure performance and coverage/impact respectively. Timely and accurate data collection, systematic collation and analysis is key. This will form the basis of periodic briefs, review of implementation status/strategy and review of the NEHSDP in 2029.





OBJECTIVES	INDICATORS	BASELINE VALUE	MID-TERM VALUES	END OF PLAN	MOV	COMMENTS
<b>Objective 1</b>  To strengthen governance and coordination of all stakeholders for effective eye care programme implementation towards achieving Universal Health Coverage	Proportion of States who have domesticated the National Eye care Policy	0%	50%	90%	State Reports	Disaggregate by geo-political zones
	Proportion of States who have adopted and domesticated the NEHSDP	0%	70%	100%		Disaggregate by geo-political zones
	Percentage implementation of the NEHSDP at National level	0%	60%	90%	Program report	
	Percentage implementation of the SEHSP at State level				State Reports	
	Existence of budget line for Eye care at National and subnational levels	Absent	Present	Present	Budget	
	Proportion of states with a functional partners forum	0%	70%	100%	State Reports	Disaggregate by geo-political zones
	Proportion of states with functional state eye committee	69%	80%	100%	State Reports	Disaggregate by geo-political zones
	Proportion of States that celebrated the World Sight Day	80%	100%	100%	State Reports	Disaggregate by geo-political zones
	Number of States that observed National Eye care Day	0%	100%	100%	State Reports	Disaggregate by geo-political zones
<b>Objective 2</b>  To ensure that all Nigerians have equitable access to high quality, sustainable and patient-centered eye care service	Proportion of Nigerians that have access to eye care services	X	X+30%	X+50%	Survey Report	Disaggregate by Gender, age-group, disability and SES
	Prevalence of vision impairment in Nigeria	1.5%	1%	0.8%	Survey Report	Disaggregate by Gender, age-group, disability and SES
	Prevalence of blindness in Nigeria	0.78%	0.5%	0.3%	Survey report	Disaggregate by Gender, age-group, disability and SES
	Number of LGAs where prevalence of blinding trachoma is above public health significance level	TBD		Survey report		Disaggregate by rural-urban
	Number of Onchocerciasis endemic communities	36000	28000	20000	Survey re-port	Disaggregate by rural-urban
	Proportion of people with unilateral or bilateral cataract who underwent surgery in the period under review	X	X+10%	X+20%	DHIS 2	Disaggregate by location
	Proportion of people who have refractive errors corrected by dispensed spectacles	X	X+15%	X+30%	DHIS 2	Disaggregate by age
	Number of health facilities with subsidized EH services	X	X+10%	X+20%	Survey report	Disaggregate by rural-urban; level of care and BHCPF
	Number of patient consultations for eye diseases in Nigeria per year	X	X+30%	X+50%	DHIS 2	

OBJECTIVES	INDICATORS	BASELINE VALUE	MID-TERM VALUES	END OF PLAN	MOV	COMMENTS
	Proportion of out-of-pocket expenditure for eye care in Nigeria	X	X-5%	X-15%	Survey report	Disaggregate by rural-urban; SES
	Proportion of Nigerians who are aware that eye care services can be accessed in the PHC facilities	X	X+30%	X+50%	DHIS 2	Disaggregate by rural-urban
	Proportion of primary schools that implemented eye care screening program in their school health service	0%	30%	50%	Survey report	Disaggregate by rural-urban; private-public
	Proportion of PHCs that regularly screen children U-5 during immunization and infant welfare clinics	0%	20%	30%	Survey report	Disaggregate by rural-urban; private-public
	Proportion of HWs that screen for underlying eye problems alongside chronic diseases management	X	X+20%	X+30%	Survey Report	Disaggregate by level of care
<b>Objective 3</b> To improve the Quality Assurance systems in the delivery of eye care services	Percentage of clients satisfied with quality of eye care service provided at all levels of care	X	X+30%	X+50%	Survey report	Disaggregated by level of care; payment method and SES
	Proportion of eyecare facilities that utilize SOPs for all procedures	X	X+20%	X+40%	Survey report	Disaggregate by level of care
	Number of people whose cataract were operated and have visual acuity better than 6/18 in the operated eye in the year under review	X	X+10%	X+20%	DHIS 2	
	Proportion of health facilities offering eye care that were accredited and certified to provide eye care in the year under review	X	X+20%	X+30%	NEHP report	Disaggregate by level of care
	Proportion of health facilities providing eye care services that have a QI plan	0%	70%	100%	Survey report	Disaggregate by level of care
	Proportion of eye care equipment that were certified by SON	X	X+50%	100%	SON register FMOH procurement report	
	Proportion of eye care medicines and products certified by NAFDAC	100%	100%	100%	Survey report procurement report	
	Number of tertiary health facilities providing specialized eye care	X	X+50%	100%	Survey Report	
	Proportion of eye care providers that have up to date license from their regulatory bodies to practice	100%	100%	100%	Regulatory body register	Disaggregate by state; rural-urban
	Availability of framework for enforcement of regulations bothering on competencies and boundaries of each eye care professional	Absent	Present	Present	NEHP report Regulatory body reports	

OBJECTIVES	INDICATORS	BASELINE VALUE	MID-TERM VALUES	END OF PLAN	MOV	COMMENTS
	Proportion of eye outreach/camps accredited and monitored by national and sub-national eye care committees	X	X+50%	100%	NEHP reports SEHC reports	
<b>Objective 4</b>  To ensure that at least 80% of health care facilities provide quality and affordable eye care services integrated within the health system	Proportion of PHC centers providing eye care service	X	X+50%	80%	Survey report	Disaggregate by state; rural-urban
	Proportion of PHCs linked to secondary health facility	X	X+50%	100%	Survey report	Disaggregate by state; rural-urban
	Number of secondary health facilities providing eye care services per million population	X	X+20%	X+50%	Survey report	
	Proportion of PHC with at least one HW trained on eye care	X	X+20%	X+50%	Survey report	Disaggregate by state; rural-urban
	Number of secondary HFs providing cataract surgery services	X	X+30%	X+50%	Survey report	Disaggregate by state; rural-urban
	Number of centers providing laser treatment for eye care	X	X+20%	X+50%	Survey report	Disaggregate by level of care; rural-urban
	Proportion of HFs that provide pediatric ophthalmologic services	X	X+20%	X+50%	Survey report	Disaggregate by level of care; rural-urban
	Proportion of HFs that provide emergency eye services	X	X+60%	100%	Survey report	Disaggregate by level of care; rural-urban
	Number of HFs that are linked to the BHCPF	X	X+50%	100%	SPHCB report	
	Number of HWs trained on eye care	X	X+50%	100%	Program report	Disaggregate by state; level of care; rural-urban
	Proportion of PHC facilities with stock of eye medicines, eyeglasses and consumables required for service provision	X	X+10	X + 50%	Survey report	
	<b>Objective 5</b>  To strengthen referral system for integrated EH delivery in the country	Proportion of PHCs that receive referral for eye care from the community	X	X+5%	X+10%	Survey report
Number of referrals made for eye care by HFs in the year under review		X	X+30%	X+40%	DHIS 2	Disaggregate by level of care; rural-urban
Proportion of PHCs that received feedback from higher level of care		X	X+30%	X+40%	DHIS 2	
Number of HWs trained on appropriate referral indications and procedures		X	X+30%	X+40%	Program report	Disaggregate by state; level of care; rural-urban
Number of health facilities that experienced stock-out of referral forms within the reporting period		X	X-20%	X-50%	Survey report	Disaggregate by level of care; rural-urban

OBJECTIVES	INDICATORS	BASELINE VALUE	MID-TERM VALUES	END OF PLAN	MOV	COMMENTS
<b>Objective 6</b>  To develop sustainable financing mechanisms for EH	Number of eye care services obtained through health insurance coverage	X			NHIS register. SHIS register	Disaggregate by level of care; rural-urban
	Number of eye care procedures covered by health insurance schemes and other risk pooling mechanisms	TBD			Health insurance policy	
	Proportion of eye care budget released by Government	60%	80%	100%	NEHP accounts	
	Amount contributed to eye care by private sector	X	X+10%	X+20%	NEHP accounts	
	Proportion of PHCs utilizing BHCPF for eye care service provision	X	X+20%	X+30%	Survey report	Disaggregate by state; rural-urban
	Amount contributed to the eye care purse by donors/partners	TBD			NEHP accounts	
<b>Objective 7</b>  To generate reliable evidence-based data for decision making for eye care.	Availability of eye care research agenda	Present	Present	Present		
	Number of eye care surveys conducted, and result disseminated nationally	0	1	1	Survey reports	
	Number of eye care related articles published	0	2	5	Local and international peer reviewed journals and other news outlets	Disaggregate by local and international
	Number of policy directives informed by eye care research	DR, Glaucoma, PRC, SHE (4)	6	8	Policy directives	
	Proportion of policy makers willing to utilize eye care data for decision making	X	X+5%	X+10%	Survey report	
	Number of eye care grants received during the reporting period	0	2	5		
	Proportion of eye care budget appropriated and released for eye care research	0	3%	5%	NEHP accounts	
	Proportion of HFs whose eye care data is routinely reported on DHIS 2	0%	60%	100%	DHIS 2	Disaggregate by level of care; rural-urban
	Number of eye care research fairs conducted	0	1	2	Program report	

X is unknown due to unavailable data

### 4.3 Costing

The key parameters that guided the development of the costing for 2024-2028 National Eye Health Strategic Development Plan (NEHSDP) are the Strategies and Intervention which detailed the specific objectives with their corresponding strategy and broad activities, and Implementation Plan, which has the Timeline for broad activities. From there, the type and number of activities, timeline of implementation, were extracted to determine the type and number of goods, and services to be procured and thus the unit cost of the activities, goods, and services.

The budget was laid out into seven segments, representing the seven (7) specific objectives set out in the 2024-2028 NEH Strategic Plan. Each segment contained columns for the Strategy, Description of Broad Activities, Responsibilities (Lead Organisation and Supportive Organisations), Frequency per year, Years of Implementation, Cost per Unit (of each broad



activity) and Cost of Implementation per each year, where it applies.

#### Determining the targets

Targets for capacity development, advocacy, development or review of policies, guidelines, and standard operating procedures (SOPs), and printing, disseminating and distributing the final documents; meetings; and supervision and monitoring of and reporting on program activities are informed by the self-reported needs of key stakeholders from the States, and the MDAs.

#### Determining the unit cost of goods and services

Some cross-cutting cost elements were identified and listed out with their corresponding current rates. They were subsequently used in the determining the cost of the broad activities that has financial implications.

#### List of Cross-cutting Cost Elements:

COST ELEMENTS	RATE
Airfare+terminals	₦ 100,000.00
DSA	₦ 36,000.00
Intercity Road travels	₦ 20,000.00
Honorarium	₦ 20,000.00
Tea-break	₦ 2,000.00
Lunch	₦ 3,500.00
Hall rent (Big space)	₦ 400,000.00
Hall rent (small space)	₦ 150,000.00
Hall rent (very large space)	₦ 500,000.00
Stationary for participants	₦ 1,500.00
Logistics/courier cost	₦ 40,000.00
Refreshment	₦ 2,000.00
Local intracity fare	₦ 10,000.00
Consultancy fee	₦ 100,000.00
questionnaires/copy	₦ 500.00
Printing of Large banner	₦ 100,000.00

While unit costs of goods and services are known to vary, in some cases substantially, across the country, the costing of the NEHSDP did not take into consideration these variations. The unit costs used are in the upper part of the ranges of costs known for the goods and services. Cost of goods and services procured directly from vendors in Nigeria were obtained from the vendors and those imported were obtained from available data from suppliers and those within the country who regularly procure the goods and services.

The total cost for each broad activity was arrived at using the number of occurrences of the activities over the course of the life span of the strategic plan and the corresponding frequency per year, as detailed in the Implementation Plan. The incremental change per year on the costed activities was based on an adjustable inflation rate of five percent (5%).

It is worthy of note that, relevant stakeholders/agencies made their inputs in arriving at the costed value for the activities that impacted on them.

#### **Key budget assumptions**

Capacity building made up a substantial proportion of the activities in the NEHSDP. For training activities at the national and zonal levels, it was assumed that facilitators and

consultants have to travel by air to the training location, while at the state level facilitators and consultants are assumed to be sourced within the state and would not have to travel. Most step-down training activities at the LGA and community levels are assumed to be facilitated by trainers who have been trained and are not therefore paid as consultants.

#### **Implementation, Measure of Success and Risk Management**

Annual workplans and budgets will be prepared by all implementers to better reflect the cost of activities. A review of the NEHSDP objectives, strategic interventions, major activities and their costing will be undertaken in at the beginning of the 3rd year to better inform progress on the NEHSDP and to address any major changes in cost of activities that may have occurred since the implementation of the NEHSDP began. Potential risks and barriers may arise in the course of implementation, such as economic downturns, and unforeseen market shifts, FOREX fluctuations. There is need to identify these risks and then develop contingency while developing the annual work plans and the corresponding budgets.

## 4.4 Summary Table for NEHSDP 2024-2028 Costing

STRATEGIC OBJECTIVES	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL BUDGET
<b>Strategic Objective 1:</b> To strengthen governance and coordination of all stakeholders for effective eye care programme implementation towards achieving Universal Health Coverage	181,038,500.00	107,269,575.00	95,168,902.50	85,980,281.63	109,533,522.46	578,990,781.58
<b>Strategic Objective 2:</b> To ensure that all Nigerians have equitable access to high quality, sustainable and patient-centered eye care service	179,256,500.00	1,794,708,037.50	1,833,781,359.38	70,677,636.75	74,211,518.59	3,952,635,052.21
<b>Strategic Objective 3:</b> To improve the Quality Assurance systems in the delivery of eye care services	52,025,000.00	68,872,650.00	50,715,000.00	53,250,750.00	79,728,701.46	304,592,101.46
<b>Strategic Objective 4:</b> To ensure that at least 80% of health care facilities provide quality and affordable eye care services integrated within the health system	20,225,000.00	-	-	-	-	20,225,000.00
<b>Strategic Objective 5:</b> To strengthen referral system for integrated EH delivery in the country	30,040,000.00	31,542,000.00	23,064,300.00	-	-	84,646,300.00
<b>Strategic Objective 6:</b> To develop sustainable financing mechanisms for EH	15,648,000.00	12,499,200.00	13,124,160.00	13,780,368.00	14,469,386.40	69,521,114.40
<b>Strategic Objective 7:</b> To generate reliable evidence-based data for decision making for eye care	16,608,000.00	7,862,400.00	8,255,520.00	8,668,296.00	9,101,710.80	50,495,926.80
	494,841,000.00	2,022,753,862.50	2,024,109,241.88	232,357,332.38	287,044,839.70	5,061,106,276.45

## Annexes

### Annex 1: List of Documents for Desk Review

1. National Health Act
2. National Strategic Health Development Plan II
3. National Eye Health Policy 2019
4. National Primary Eye Care Training Manual 2020
5. National Eye Care Service Assessment Tool
6. National School Eye Health Guidelines 2020
7. Treatment guidelines for delivery of Child Eye Health services in Nigeria 2019
8. Performance Standards for the Provision of Child Eye Health Services in Nigeria 2020
9. Universal Eye Health Global Action Plan 2014-2019
10. World Report on Vision 2019
11. World Report on Vision 2019-IAPB summary
12. WHO Eye Care Situation Analysis tool

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63	Dr. Torkela H	National Agency for Food Drug Administration & Control
64	Zainab A. Idris	Hospital Services, Federal Ministry of Health
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67	Amina Haliru	Standards Organization of Nigeria
68	Dr. Selben Penzin	Senior Programme Manager-Eye Health, Sightsavers Nigeria
69.	Ugochukwu Paschaline	National Eye Health Programme Federal Ministry of Health
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71.	Dr Habibat Daramosu	Representative of President, Nigerian Medical Association
72.	Comrade Dareet Iliya	National Ophthalmic Nurses Association
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80	Jaafar Lawan Kura	Desk Officer (Eye Health), Kano State Ministry of Health.

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83.	Dr. Olufemi Oroge	Desk Officer (Eye Health), Osun State Ministry of Health.
84	Elsie Nelson Rengkwari	Desk Officer (Eye Health), Plateau State Ministry of Health
85	Mrs. Obi-Anyanwu Cordelia	Desk Officer (Eye Health), FCT State Ministry of Health and Humanitarian Services
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91	Dr. Matilda Kerry	Senior Analyst, Clinton Health Access Initiative
92	Dr. Damilola Oyedele	Senior Analyst, Clinton Health Access Initiative
93	Paulette Ibeka	Senior Programme Manager, Clinton Health Access Initiative
94	Tucker Bbosa	Manager, Clinton Health Access Initiative
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96	Prof Bolutife Olasanya	University College Hospital Ibadan
97	Prof Adepoju Feyi	University of Ilorin Teaching Hospital ILORIN
98	Dr Adaora Okudo	Asokoro District Hospital
99	Dr Henrietta.i. Monye	Eleta Eye Institute Ibadan
100	Obasuyi Cyril	Irrua Specialist Teaching Hospital, Irrua Edo State
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