Federal Republic of Nigeria

FEDERAL MINISTRY OF HEALTH AND SOCIAL WELFARE

DEPARTMENT OF HOSPITAL SERVICES

MEDICAL LABORATORY SERVICES DIVISION

NIGERIA ESSENTIAL DIAGNOSTICS LIST (NEDL)

Second Edition
July 2026



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FOREWORD

The Nigeria Essential Diagnostics List (NEDL), First Edition (2021), marked a historic milestone as the first of such documents in Africa, strategically aligning our medical laboratory services with Universal Health Coverage (UHC) goals. Developed through collaboration between the Federal Ministry of Health, World Health Organization, Global Fund, and other key stakeholders, the document provided essential guidance for diagnostics procurement, prioritizing high-burden diseases, disease-specific tests, and blood screening to strengthen Nigeria's national health system.

This Second Edition addresses critical gaps identified in the first edition. Notably, it integrates core bacteriology and virology tests, such as those for Lassa fever and other high-burden viral infections. It pays due attention to Antimicrobial Resistance (AMR) and further strengthens health security amid evolving epidemiological threats. This review also harmonizes with the National Health Insurance Authority's (NHIA) updated Service Package (2025) and costing framework, enhancing financial access to quality laboratory testing through contemporary pricing reflective of market realities.

This updated NEDL serves as a robust policy tool that supports the National Medical Laboratory Strategic Plan (2023 – 2027), enabling equitable diagnostics at all levels of healthcare. The reviewed document focus aligns well with the spirit of the government's Renewed Hope Agenda, providing essential coordination and strategic direction for medical laboratory services in the country. There is however a need for continuous reviews to sustain relevance, maintain current reality on the ground, and ensure Nigeria upholds leadership in policy direction for Medical Laboratory Services across Africa.

The Ministry expresses its most sincere gratitude to all individuals who contributed to the success of this document review. The leadership and coordination provided by the Division of Medical Laboratory Services, Department of Hospital Services, are noteworthy.

It is important to encourage all stakeholders in the health sector space in Nigeria to convert the policy intent of this reviewed document into a real, beneficial implementation that gives the expected top-notch support to individual patients' journey from disease onset to accurate and timely screening, diagnosis and prognostication.

Thank you.



Prof. Muhammad Ali Pate, *CON*
Coordinating Minister of Health and Social Welfare
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PREFACE

Universal Health Coverage (UHC), a cornerstone of the Sustainable Development Goals, affirms every Nigerian's right to quality healthcare, a commitment central to the Renewed Hope Agenda of the government. The role of quality, equitable, and well-rounded Nigeria Essential Diagnostics List (NEDL) in enhancing UCH cannot be overemphasized.

In May 2018, the World Health Organization (WHO) released its first edition of the Model List of Essential In Vitro Diagnostics (EDL). This stemmed from the realization that diagnostics are a vital component to move Universal Health Coverage (UHC) forward, address health emergencies, and generally promote healthier populations. Following this effort by the WHO, India became the first country globally to publish its own, while Nigeria made history as the first African country to produce a Nigeria Essential Diagnostics List in 2021. This effort, though remarkable, the emerging realities of our health sector has created a need to revise the document.

This Second Edition of the NEDL serves as an updated, more authoritative guidance document to prioritize critical, appropriate diagnostics for equitable access across primary, secondary, and tertiary healthcare levels. It guides the selection, procurement, supply, donations, and provision of diagnostics, covering general tests, disease-specific tests, blood screening for transfusion, and incorporating the revised medical laboratory tests pricing framework.

Building on the landmark First Edition, this review addresses evolving epidemiological realities, including Lassa fever threats and Antimicrobial Resistance (AMR), incorporating core bacteriology and virology tests. It also aligns with the National Health Insurance Authority's (NHIA's) 2025 Service Package Framework, which reflects market-based costing to enhance financial accessibility.

This review process exemplifies collaborative effort, drawing on stakeholders' inputs to produce a document that addresses more areas not captured by the first edition. The Federal Ministry of Health and Social Welfare extends profound gratitude to all participants who contributed their expertise, time and dedication. The Medical Laboratory Science Division of the Department of Hospital Services deserves commendation for spearheading the review, coordinating technical committees, and ensuring alignment with contemporary realities. Heartfelt appreciation also goes to laboratory professionals from government and private organizations, clinicians, experts and policy makers from different agencies for their insights during the review of the document. Their collective wisdom has transformed this document into a more practical guidance tool for Nigeria's medical laboratory need.

The implementation of this NEDL will be instrumental in ensuring the delivery of quality priority-targeted laboratory services in the country, and health care of the citizens.



Daju S. Kachollom, *mni*
Permanent Secretary
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Federal Republic of Nigeria

ACKNOWLEDGEMENT

The review of the Nigeria Essential Diagnostics List was undertaken through a collaborative and comprehensive process, reflecting the commitment and technical expertise of diverse stakeholders dedicated to strengthening healthcare delivery and improving access to quality diagnostic services across the country.

The Federal Ministry of Health and Social Welfare extends its sincere appreciation to the UK Health Security Agency (UKHSA) and Roche Diagnostics for their technical and institutional support, as well as their strategic partnership, which were instrumental in the successful review of this national policy document.

The Ministry also acknowledges the invaluable contributions of all stakeholders, including relevant government agencies, healthcare professionals, and technical experts, whose collective input, professionalism, and sustained engagement were critical to the completion of this important national policy instrument. Their collaboration and shared commitment form the foundation upon which this document is established and implemented.

The Federal Ministry of Health and Social Welfare remains grateful for these contributions, which are vital to advancing equitable access to quality diagnostics and strengthening the national health system.



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EXECUTIVE SUMMARY

The Nigeria Essential Diagnostics List (NEDL) is a national policy instrument developed by the Federal Ministry of Health and Social Welfare to guide the rational selection, prioritization, and deployment of essential diagnostics tests across Nigeria's health system. It provides a structured framework to support evidence-based decision-making, strengthen laboratory governance, and ensure equitable access to quality diagnostic services as a foundation for Universal Health Coverage (UHC), health security, and improved population health outcomes.

The 2026 edition of the NEDL reflects Nigeria's evolving epidemiological profile, emerging and re-emerging infectious disease threats, rising burden of non-communicable diseases, and growing concerns around antimicrobial resistance. It aligns with global best practices, including the World Health Organization Essential Diagnostics List, while remaining responsive to national priorities, available resources, and health system realities. By complementing the Nigeria Essential Medicines List, the NEDL reinforces the principle that accurate and timely diagnosis is fundamental to effective treatment, efficient resource use, and sustainable healthcare financing.

The NEDL defines prioritized categories of general and disease-specific diagnostic tests across twelve laboratory disciplines, mapped to the appropriate levels of care—primary, secondary, and tertiary. This tiered approach supports strategic planning for infrastructure development, workforce deployment, procurement, and referral systems, while promoting standardization and integration of diagnostic services nationwide. The list deliberately avoids specifying brands, allowing flexibility in procurement while supporting regulatory oversight, quality assurance, and alignment with nationally approved testing algorithms.

Inclusion of diagnostics in the NEDL is guided by transparent, evidence-based criteria, including disease burden, public health relevance, cost-effectiveness, and contribution to surveillance, outbreak preparedness, and antimicrobial resistance containment. The NEDL therefore serves as a key reference for strengthening laboratory systems, supporting national disease control programmes, and improving preparedness for public health emergencies.

The NEDL is intended to inform health policy formulation, budgeting, and implementation at federal, state, and local levels. It provides strategic guidance for the National Health Insurance Authority, State Health Insurance Agencies, regulatory bodies, development partners, and the private sector in defining diagnostic benefit packages, prioritizing investments, and improving access to essential diagnostics. As a living policy document, the NEDL will be periodically reviewed to remain aligned with technological innovation, shifting health priorities, and Nigeria's commitment to resilient, equitable, and sustainable health systems.



Elom Emeka
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ABBREVIATIONS

ACR	Albumin-to-Creatinine Ratio
ACT	Artemisinin-based Combination Therapy
AFP	Alpha-fetoprotein
AHD	Advanced HIV Disease
ALP	Alkaline Phosphatase
ALT	Alanine Transaminase
AML	Acute Myeloid Leukaemia
AMR	Antimicrobial Resistance
ANC	Antenatal Care
Anti-HBe	Anti-Hepatitis B envelope antibody
Anti-HIV Ab	Anti-HIV antibody
Anti-HIV p24	Anti-HIV p24 antigen
APTT	Activated Partial Thromboplastin Time
ARI	Acute Respiratory Infection
AST	Aspartate Aminotransferase
BCR ABL1	Breakpoint Cluster Region Abelson 1 gene
BMP	Basic Metabolic Panel
BUN	Blood Urea Nitrogen
CBC	Complete Blood Count
CD4	Cluster of Differentiation 4
CD20	Cluster of Differentiation 20
CHAI	Clinton Health Access Initiative
CI	Confidence Interval
CL	Clinical or Medical Laboratory
CLSI	Clinical Laboratory Standard Institute
CML	Chronic Myeloid Leukaemia
CMP	Comprehensive Metabolic Panel
CODIS	Combined DNA Index System
CRP	C-Reactive Protein
CSF	Cerebrospinal Fluid
CT	Chlamydia trachomatis
CVD	Cardiovascular Disease
DAT	Direct Antiglobulin Test

DBS	Dried Blood Spot
DHSC	Department of Health and Social Care
DLBCL	Diffuse Large B-Cell Lymphoma
DNA	Deoxyribonucleic Acid
DPT	Diphtheria, Pertussis, and Tetanus
DST	Drug-Susceptibility Testing
EDL	Essential Diagnostics List
eGFR	Estimated Glomerular Filtration Rate
EIA	Enzyme Immunoassay
ELISpot	Enzyme-Linked Immune Absorbent Spot
ER	Estradiol
Erb B-2	Tyrosine-protein kinase receptors
FBC	Full Blood Count
FCT	Federal Capital Territory
FFPE	Formalin-Fixed Paraffin-Embedded
FGON	Federal Government of Nigeria
FIT	Faecal Immunochemical Test
FL	Follicular Lymphoma
FMOH	Federal Ministry of Health
FNA	Fine Needle Aspirate
fPSA	Free Prostate Specific Antigen
fT3	Free Triiodothyronine
fT4	Free Thyroxine
G6PD	Glucose-6-Phosphate Dehydrogenase
GGT	Gamma Glutamyl Transferase
HbA1c	Glycosylated Haemoglobin
HBcAg	Hepatitis B core antigen
HBeAg	Hepatitis B envelope antigen
HBsAb	Hepatitis B antibody
HBsAg	Hepatitis B surface antigen
HBV	Hepatitis B Virus
HCG	Human Chorionic Gonadotropin
HCV	Hepatitis C Virus
HCV-Ab	Hepatitis C Virus antibody
HCVcAb	Hepatitis C core Antibody
HCVcAg	Hepatitis C Virus core Antigen
HER-2	Human Epidermal Growth Factor Receptor-2
HH	Household

HIER	Heat-Induced Epitope Retrieval
HPV	Human Papillomavirus
HRP2	Histidine-Rich Protein 2
HTLV	Human T-Lymphotropic Virus
IAT	Indirect Antiglobulin Test
IgA	Immunoglobulin A
IgG	Immunoglobulin G
IgM	Immunoglobulin M
IGRA	Interferon-Gamma Release Assay
IHC	Immuno-Histochemistry
KAP	Knowledge, Attitudes, and Practice (Perception)
LAM	Lipoarabinomannan
LAMP	Loop-mediated Isothermal Amplification
LDH	Lactate Dehydrogenase
LGA	Local Government Area
LPA	Line Probe Assay
LQMS	Laboratory Quality Management System (ISO 15189)
MICS	Multiple Cluster Indicator Survey
MLSCN	Medical Laboratory Science Council of Nigeria
MLSD	Medical Laboratory Science Division
MNA	Micro Neutralization Assay
NASCP	National AIDS, Viral Hepatitis, and STIs Control Programme
NAT	Nucleic Acid Test
NBS	National Bureau of Statistics
NCDC	Nigeria Centre for Disease Control
NEDL	National Essential Diagnostics List
NG	Neisseria gonorrhoeae
NHIA	National Health Insurance Authority
NIPHID	National Institute of Public Health and Infectious Diseases
NPopC	National Population Commission
NSHDP	National Strategic Health Development Plan
NTBLCP	National Tuberculosis, Leprosy, and Buruli Ulcer Control Programme
ODK	Open Data Kit
ORIE	Operational Research and Impact Evaluation
Pan-pLDH	Pan malarial Antigen
PAP Smear	Papanicolaou Smear
PgR	Progesterone
PHC	Primary Health Care

PHL	Public Health Laboratory
PPS	Probability Proportional to Size
PSU	Primary Sampling Unit
PT/INR	Prothrombin time and International normalized ratio
PTT	Partial Thromboplastin Time
QA	Quality Assurance
QC	Quality Control
qPCR	Quantitative Polymerase Chain Reaction
RDT	Rapid Diagnostic Test
RID	Radioimmunoassay
RPR	Rapid Plasma Reagin
RT-PCR	Real-time Polymerase Chain Reaction
SD	Standard Deviation
SDG	Sustainable Development Goals
SMART	Standardized Monitoring and Assessment of Relief and Transition
SP	Sulphadoxine Pyrimethamine
TB	Tuberculosis
TIBC	Total Iron-Binding Capacity
TPHA	Treponema pallidum hemagglutination
TPPA	Treponema pallidum Particle Agglutination
TPSA	Total Prostate Specific Antigen
TSH	Thyroid-Stimulating Hormone
UKHSA	UK Health Security Agency
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VDRL	Venereal Disease Research Laboratory
WHO	World Health Organization
ZN	Ziehl-Neelsen stain

DEFINITION OF TERMS

Antimicrobials	Any agent (such as medicine, chemical, or substance) that kills or inhibits the growth of microorganisms, including bacteria, viruses, fungi, and parasites.
Antimicrobial Resistance	Microbes like bacteria, viruses, fungi, and parasites evolve to resist medicines, making infections harder to treat and increasing disease spread, severe illness, and death, largely driven by misuse of antimicrobials in humans, animals, and agriculture.
Breakpoint Cluster Region Abelson (BCR-ABL)	The BCR-ABL fusion gene, resulting from a chromosomal translocation between chromosomes 9 and 22 (the Philadelphia chromosome), creates a hyperactive tyrosine kinase protein, driving uncontrolled cell growth and being the genetic hallmark of Chronic Myeloid Leukemia (CML) and some acute leukemias.
Drug resistance	Disease-causing microbes (bacteria, viruses, fungi, parasites) or cancer cells evolve to withstand medicines meant to kill or inhibit them, leading to treatment failure, prolonged illness, and harder-to-cure infections.
Essential Diagnostics List	Prioritized list of key medical tests, established by the World Health Organization (WHO), that countries use to guide healthcare, ensuring vital diagnostic tools for common diseases are accessible and affordable at all levels of care, complementing essential medicines for better patient outcomes and universal health coverage.
Extensively Drug-Resistant Tuberculosis (XDR-TB)	Severe form of TB where the bacteria are resistant to the most potent first-line drugs (isoniazid, rifampin) and to any fluoroquinolone and at least one second-line injectable drug.
Multidrug Resistant TB	A severe form of tuberculosis (TB) caused by *Mycobacterium tuberculosis* bacteria resistant to at least isoniazid and rifampin.
Multiplex testing	Diagnostic method that allows for the simultaneous detection of multiple targets (like different viruses, bacteria, or genetic mutations).
Stand-alone Medical Laboratory	Testing facilities, independent from large institutions like hospitals or universities.
Screening test	Screening tests are used to determine the status of a disease, disorder or physiological state in an asymptomatic individual.
Diagnostic test	Diagnostic tests are used to determine, verify or confirm a patient's clinical condition. This type of testing also includes sole confirmatory assays (to verify results of the previous testing) and sole exclusion essays (to rule out a condition).
Aid to diagnosis	Tests that are used as aids to diagnosis provide additional information to assist in the determination or verification of a patient's clinical status.
Monitoring test	Monitoring tests are used for measuring levels of analytes to adjust treatments or interventions as required.
Prognostic tests	These tests are used to measure factors linked to clinical outcomes irrespective of treatment. These tests are designed to evaluate a patient's future state.
Surveillance test	Performed on populations of interest to track the progression of disease incidence and/or prevalence
Staging test	Performed on patients with a confirmed disease or condition to determine its state at the time of diagnosis and establish a baseline to make relevant treatment decisions.

INTRODUCTION

1.0 Background and rationale

The Nigeria Essential Diagnostics List (NEDL) is a comprehensive policy instrument defining the essential tests and technologies necessary for the effective diagnosis, management, and prevention of diseases in Nigeria. Diagnostics play a pivotal role in strengthening health systems and improving quality of life, as equitable access to high-quality, affordable testing is a fundamental pillar of quality healthcare. Accurate and timely diagnoses are essential for optimizing clinical outcomes, minimizing overall therapy costs, and containing antimicrobial resistance (AMR).

In alignment with the Sustainable Development Goals (SDGs) and the global movement toward Universal Health Coverage (UHC), Nigeria is committed to ensuring equitable access to healthcare for all citizens. Achieving this requires the integration of diagnostic services across all levels of care—primary, secondary, and tertiary—to ensure a seamless patient journey from disease onset to recovery.

The NEDL is built upon a foundation of robust partnership and coordination. It serves as a strategic reference for the Federal Ministry of Health and Social Welfare (FMOH&SW), the National Health Insurance Authority (NHIA), State Ministries of Health (SMOH), and national disease control programmes. Crucially, this edition emphasizes the active participation of the private sector, health insurance experts, and international partners to harmonize diagnostic standards and procurement nationwide.

To ensure the sustainability of Nigeria's health system, the NEDL prioritizes cost-effective, evidence-based diagnostics tailored to the national disease burden and available resources. By aligning with the NHIA's updated Service Package (2025), the NEDL promotes financial accessibility and market-reflective pricing.

Since the first edition in 2021, significant advancements in technology and emerging health threats, such as Lassa fever, have necessitated this critical review. This second edition ensures that Nigeria's diagnostic framework remains relevant, responsive, and technologically advanced, upholding our leadership in medical laboratory policy across Africa.

1.1 Objectives

The objectives of the NEDL are to create a resilient diagnostic ecosystem through the following pillars:

- Standardization and Coordination: To guide and standardize the selection and use of essential diagnostics in alignment with national health priorities and global best practices.
- Integrated Access: To promote equitable access and informed decision-making across all levels of the health system, ensuring that diagnostics are seamlessly integrated into patient care pathways.
- Sustainable Procurement: To facilitate efficient procurement and distribution of essential diagnostics, leveraging market-reflective pricing and evidence-based selection to ensure long-term financial sustainability.
- Collaborative Governance: To strengthen governance by fostering active partnerships between the FMOH&SW, national programs, regulatory bodies, and international partners.
- Private Sector Participation: To encourage the active participation of the private sector and stand-alone medical laboratories in delivering standardized, high-quality diagnostic services.
- System Strengthening: To ensure that diagnostic services are reliable, accessible, and fit-for-purpose, thereby strengthening the overall national health system and supporting the goal of Universal Health Coverage (UHC)

1.2 Scope and Content of the Nigeria Essential Diagnostics List (NEDL)

The Nigeria Essential Diagnostics List (NEDL) does not specify product brands but instead comprises diagnostic categories defined by their biological targets, serving as a nationwide guideline for laboratory test types. It omits details on minimal performance characteristics or quality standards for selecting specific brands, though nationally approved products are recommended in alignment with established national testing algorithms. This 2026 edition encompasses general and disease-specific diagnostics for communicable, noncommunicable, and other priority public health conditions, emphasizing integration. Tests are classified into general categories (for routine care, multiple conditions, or symptom clusters) and disease-specific ones (for targeted infections or diseases), spanning 12 disciplines consistent with the WHO Essential Diagnostics List (EDL) 2021 and NEDL 2022: histopathology and cytopathology; bacteriology; virology; parasitology; mycology; Haematology; clinical chemistry; immunology; blood transfusion and transplant services; food and water analysis; clinical and forensic toxicology; and forensic biology.

The NEDL is anchored on improving patient outcomes, ensuring universal health coverage (UHC), and strengthening laboratory systems. The NEDL review takes into consideration evidence-based guidance in selecting and prioritizing appropriate diagnostics based on prevalence of local disease, public health relevance, and affordability.

1.3 Criteria for inclusion of tests in the NEDL:

The selection and prioritization of diagnostic tests for the NEDL are guided by a rigorous, evidence-based process designed to maximize public health impact and system efficiency. To ensure the list remains a viable policy tool, the following criteria are applied:

a) Evidence-Based Impact and Integration: Priority is given to conditions with a high national disease burden where diagnostics have a clear, documented impact on patient management and clinical outcomes. This includes the integration of testing across different disciplines (e.g., oncology and AMR) to provide a holistic diagnostic approach.

b) Public Health Importance and Health Security: Mandatory inclusion is required for tests identifying diseases of public health importance, including emerging, re-emerging, and epidemic-prone threats such as Lassa fever.

c) Tiered System Strengthening: Tests are mapped to specific levels of the healthcare system—primary, secondary, or tertiary—based on infrastructure requirements such as access to stable electricity, reagent-grade water, and specialized human resources[1].

d) Economic Sustainability and Affordability: The review prioritizes cost-effective diagnostics that reduce the overall cost of therapy while remaining reflective of market realities to ensure long-term financial sustainability.

e) Support for Universal Health Coverage (UHC): Inclusion extends to critical supporting tests (e.g., CBC, CRP) that, while not the primary diagnostic for a single disease, are essential for comprehensive patient care and the successful delivery of UHC.

f) Alignment with National Coordination: Selected diagnostics must align with nationally approved testing algorithms and the service packages of agencies like the NHIA to ensure seamless inter-agency coordination

[1] WHO. The selection and use of essential in vitro diagnostics. Report of the fourth meeting of the WHO Strategic Advisory Group of Experts on In Vitro Diagnostics, 2022 (including the fourth WHO model list of essential in vitro diagnostics). (2022)

1.4 Tests included in the NEDL 2026

1.4.1 List of General and Disease-Specific Diagnostics

General diagnostics are defined as tests used for routine clinical care and public health services. These tests support the detection of multiple conditions or the investigation of a constellation of symptoms that may collectively suggest the presence of, or risk for, diseases included in Nigeria's national disease priority list. General diagnostics are typically applicable across a wide range of clinical scenarios and levels of care.

Disease-specific diagnostics refer to tests designed to detect or confirm specific diseases or target infections included in Nigeria's national disease priority list. This category also includes multiplex assays capable of simultaneously detecting multiple disease pathogens and susceptibility pattern from a single patient sample, where such technologies are appropriate and validated for use within the Nigerian health system. Disease specific diagnostic tests for certain conditions may span multiple diagnostic disciplines (e.g., oncology, antimicrobial resistance, and syndromic testing). This document does not provide detailed information on associated reagents, equipment, consumables, and technical requirements for each listed diagnostic.

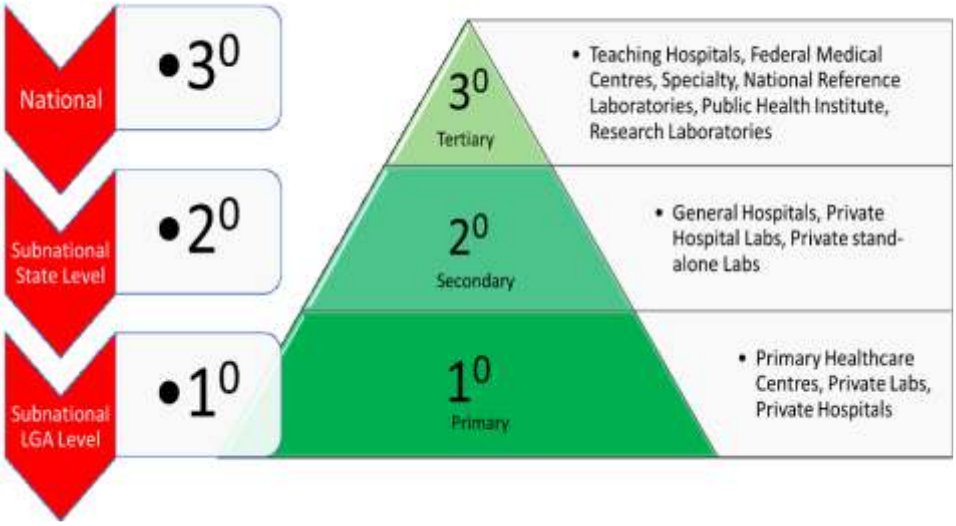


Figure 1: Levels of health care facilities

Level of Care **(LoC)** indicates the tier of the health system at which a diagnostic is intended to be available as seen in the diagram above.

In recognition of Nigeria's evolving epidemiological landscape, the NEDL also considers the potential inclusion of diagnostics relevant to reemerging, emerging, and epidemic-prone diseases, guided by national surveillance priorities and global health security considerations. The list is therefore intended to be a living document, subject to periodic review and update.

Furthermore, new diagnostic technologies, platforms, or equipment not explicitly captured in this edition of the NEDL may be adopted for use within the Nigerian health system, provided they have obtained necessary approvals.

Table 1 below presents the list of general and disease specific diagnostic tests, organized according to diagnostic disciplines. (Note: **LoC 1** denotes availability from primary to tertiary levels of care, LOC 2 Secondary to tertiary, LoC 3 only tertiary level).

NEDL Tables

Test Category	Diagnostic Test	Specimen Type	Test Technique	LoC
BACTERIOLOGY				
General	Antimicrobial susceptibility tests (AST)	Microbial isolate	Dilution/Fully automated/Kirby Bauer/Analytical Profile Index (API)	2
General	Blood culture	Whole Blood	Culture (manual/automated)	2
General	Microscopy, culture and Sensitivity/ Detection of Microbes	Stool, tissues, pus, urine, aspirates, body fluids, swabs, sputum, CSF	Direct Microscopy/ZN/Gram stain; Biochemical tests; Culture; PCR	1 / 2
Disease Specific	Anthrax: Identification of Organisms	Blood, skin lesion swabs, spinal fluid, respiratory secretions	Culture and susceptibility testing	3
Disease Specific	Anthrax: Identification/Detection of Organism	Blood, skin swabs, lesion material, bacterial isolates	ELISA; Microscopy (Gram stain); NAATs/PCR; Sequencing	3
Disease Specific	Bordetella Pertussis: Manual/Automated ID/Detection	Nasopharyngeal Swab	Serology; Microscopy; Culture; Agglutination; Biochemical; NAATs/PCR; ELISA	3
Disease Specific	Brucellosis: Antibody/antigen reaction	Serum	Slide Agglutination tests (SAT)	2
Disease Specific	Brucellosis: Identification of Brucella	Blood serum	Rose Bengal (RBT) Slide Agglutination; RDT/Immunochromatographic	2
Disease Specific	Buruli Ulcer: Identification of Organism	Wound Swab/FNA	Microscopy; NAATs/PCR; Sequencing	2
Disease Specific	Cholera: Antigen detection rapid test	Stool	Immunochromatographic assay (RDT)	1
Disease Specific	Cholera: Detection of Organisms	Cholera isolates	NAATs (chip-based) and other PCR	3
Disease Specific	Cholera: Identification of Organism	Stool, rectal swab	Stool culture and antimicrobial susceptibility testing	2
Disease Specific	Cholera: Serotyping-cholera	Cholera isolates	Slide agglutination	3
Disease Specific	Clostridium infection: Antigen test	Stool	Immunochromatographic assay (rapid test)	1
Disease Specific	Clostridium infection: Detection of Organisms	Stool	NAATs (chip-based) and other PCR	2
Disease Specific	Diphtheria: Manual/Automated ID/Detection	Swabs (Nasopharyngeal, Oral, Nasal, Lesion), Tissue, Isolates	LFA/ICS; Microscopy; AST; Biochemical; Bio typing (MALDI-TOF/API); Toxigenicity; NAATs; WGS	2 / 3

Disease Specific	Dysentery: Detection of Organism	Bacterial Isolates and whole blood	NAATs (chip-based) and other PCR	3
Disease Specific	Dysentery: Identification of Shigella	Stool	Stool culture and antimicrobial susceptibility testing	3
Disease Specific	Dysentery: Serotyping	Shigella isolates	Slide agglutination	3
Disease Specific	Gonorrhea and Chlamydia: ID/Susceptibility	Swabs (Urine, Urethral, Endocervical, Vaginal, Rectal, Throat), Liquid cytology	Direct microscopy; Culture and susceptibility; NAATs	2
Disease Specific	Leprosy: Identification and Detection of Organisms	Slit skin smear; Skin biopsy, whole blood	Microscopy; NAATs (chip-based)	1 / 3
Disease Specific	Meningococcal meningitis: Detection of Organisms	CSF	NAATs (chip-based) and other PCR	3
Disease Specific	Meningococcal meningitis: Identification of Organisms	CSF	Culture and antimicrobial susceptibility testing	2
Disease Specific	Meningococcal meningitis: Serotyping	CSF	Meningococcal meningitis serotyping	2
Disease Specific	Peptic ulcers: Helicobacter pylori antigen test	Stool/Blood/Breath	Immunochromatographic assay (rapid test)/Urea Breath Test	1
Disease Specific	Plague: Fine needle aspiration (FNA) test	Lymph node aspirates	Microscopy and culture	2
Disease Specific	Pneumonia: Microscopy, culture and sensitivity	Blood, sputum, bronchial wash, FNA, respiratory samples	Direct microscopy; Culture and sensitivity; NAATs	2 / 3
Disease Specific	Syphilis: Fluorescent treponemal antibody absorbed (FTA-ABS)	Blood, serous fluid, CSF	Fluorescent microscopy	2
Disease Specific	Syphilis: NAATs for syphilis	Serum, whole blood	NAATs (chip-based) and other PCR	2
Disease Specific	Syphilis: Treponema pallidum hemagglutination (TPHA)	Blood serum	Hemagglutination test/RDT	1
Disease Specific	Syphilis: Venereal Disease Research Laboratory (VDRL)	Blood serum	Agglutination test/RDT	1
Disease Specific	Tuberculosis: Drug susceptibility testing of MTB	Sputum and extrapulmonary samples	Drug susceptibility testing	3

Disease Specific	Tuberculosis: Genomic Sequencing	Sputum, culture isolates, extrapulmonary	WGS / NGS	3
Disease Specific	Tuberculosis: Histological test for TB	Tissue (Routine/Post-mortem)	Microscopy	2
Disease Specific	Tuberculosis: Latent TB Infection	Blood/subcutaneous Tissue	Mantoux / IGRA	1
Disease Specific	Tuberculosis: Mycobacterium tuberculosis bacteria test	Sputum, extrapulmonary, body fluids	AFB microscopy: ZN/FM	1
Disease Specific	Tuberculosis: Mycobacterium tuberculosis DNA test	Sputum, body fluids, stool, biopsy, FNA, Urine	LAMP; NAATs (chip-based) and other PCR	1 / 2
Disease Specific	Tuberculosis: MTB DNA mutations associated with resistance	Sputum, extrapulmonary, culture isolates	1st and 2nd Line probe Assay (LPA); NAATs	2
Disease Specific	Tuberculosis: TB Lipoarabinomannan (LAM)	Urine	Lateral flow assay (LFA)	1
Disease Specific	Typhoid fever: Identification of Organisms	Stool, blood, bacterial isolates	Culture and antimicrobial susceptibility tests	2
Disease Specific	Typhoid fever: Detection of Organisms	Bacterial Isolates and whole blood	NAATs (chip-based) and other PCR	3
Disease Specific	Typhoid fever: Salmonella antigen testing	Stool, whole blood	Immunochromatographic (RDT)/Tube titration	2
BLOOD TRANSFUSION & TRANSPLANT SERVICES				
General	A & B antibody titers	Plasma	Spectrophotometry, copper sulphate gravimetry	2
General	Antibody screening	Plasma	Solid phase, column agglutination (gel testing), tube	2
General	Blood grouping (ABO and Rh D)	Whole blood and Plasma	Electric impedance, flow cytometry, spectrophotometry, Manual	1
General	Coagulation tests	Plasma in sodium citrate	Chronometric, chromogenic and immunological	2
General	Direct antiglobulin test (DAT) / Direct Coombs	Whole Blood (EDTA)	Solid phase, column agglutination (gel testing), tube	2
General	Full Blood Count	Whole blood	Solid phase, column agglutination (gel testing), tube	2
General	Hemoglobin estimation	Whole blood	Spectrophotometry, copper sulphate gravimetry	2
General	Indirect antiglobulin test (IAT) / Indirect Coombs	Plasma	Solid phase, column agglutination (gel testing), tube	2

General	NAATs for blood group genotyping	Serum	PCR	2
Disease Specific	Cytomegalovirus test	Whole Blood, Serum, Plasma	CMIA, ECLIA, ELISA	3
Disease Specific	Epstein Barr Virus (EBV) test	Whole blood, plasma, serum	Flow cytometry, NAAT	3
Disease Specific	Hepatitis B: HBs Ag	Whole Blood, Serum, Plasma	CMIA, ECLIA, ELISA, or RDT	2
Disease Specific	Hepatitis B: HBc Ab (Core antibody)	Whole Blood, Serum, Plasma	CMIA, ECLIA, ELISA, or RDT	2
Disease Specific	Hepatitis C: HCV Ab	Whole Blood, Serum, Plasma	CMIA, ECLIA, ELISA, or RDT	2
Disease Specific	HIV 1 & 2	Whole Blood, Serum, Plasma	CMIA, ECLIA, ELISA, or RDT	2
Disease Specific	Human leucocyte antigen (HLA) test	Whole blood, Buccal swab, saliva, tissue	Flow cytometry, NAAT	3
Disease Specific	Syphilis-Treponema pallidum test	Serum, plasma	CMIA, ECLIA, ELISA, or Agglutination (TPHA/TPPA)	2
CLINICAL CHEMISTRY				
General	Alanine aminotransferase (ALT)	Serum, plasma	Spectrophotometry or reflectance photometry	2
General	Albumin	Serum, plasma	Spectrophotometry or reflectance photometry	2
General	Alkaline phosphatase (ALP)	Serum, plasma	Spectrophotometry or reflectance photometry	2
General	Aspartate aminotransferase (AST)	Serum, plasma	Spectrophotometry or reflectance photometry	2
General	Blood glucose	Serum, plasma, CSF, serous fluids	Spectrophotometry or reflectance photometry	2
General	Blood pH and gases	Whole blood in heparin	Spectrophotometry or enzyme immunoassay	2
General	Blood Urea Nitrogen (BUN)	Serum, plasma, urine	Spectrophotometry/ISE potentiometry	2
General	C-Reactive protein (CRP)	Serum	Electrochemistry	2
General	Cortisol (total)	Serum	Enzyme immunoassay	2
General	Creatinine	Serum, plasma, urine	Spectrophotometry/ISE potentiometry	2
General	CSF/Urine protein (microalbumin) test	CSF / urine	Lateral flow chromatography, Agglutination	1
General	Direct bilirubin	Serum, plasma	Spectrophotometry or reflectance photometry	2
General	Electrolytes (Na, K, Cl,	Serum	ISE potentiometry	2

	HCO3)			
General	Estradiol	Serum	Enzyme immunoassay	2
General	Follicle stimulating hormone (FSH)	Serum	Enzyme immunoassay	2
General	Free T3 / Free T4	Serum	Enzyme immunoassay	2
General	Gamma-glutamyl transferase (GGT)	Serum, plasma	Spectrophotometry or reflectance photometry	2
General	Glucose-6-phosphate dehydrogenase (G6PD)	Whole blood	Photometric	2
General	High-Density Lipoprotein (HDL)	Serum	Spectrophotometry or reflectance photometry	2
General	Human chorionic gonadotropin (beta HCG)	Urine / Serum	Enzyme immunoassay	2
General	Ionized calcium	Serum	ISE potentiometry	1
General	Ketones	Urine	Spectrophotometry or reflectance photometry	2
General	Lipase or amylase	Serum	Spectrophotometry or reflectance photometry	2
General	Low-Density Lipoprotein (LDL)	Serum	Spectrophotometry or reflectance photometry	2
General	Magnesium	Serum	Spectrophotometry or reflectance photometry	2
General	Phosphorous	Serum	Spectrophotometry or reflectance photometry	2
General	Procalcitonin	Serum	Spectrophotometry or reflectance photometry	2
General	Progesterone	Serum	Enzyme immunoassay	2
General	Prolactin	Serum	Enzyme immunoassay	2
General	Sex hormone-binding globulin (SHBG)	Serum	Enzyme immunoassay	2
General	Testosterone	Serum	Enzyme immunoassay	2
General	Thyroid-stimulating hormone (TSH)	Serum	Enzyme immunoassay	2
General	Total bilirubin	Serum, plasma	Spectrophotometry or reflectance photometry	2
General	Total calcium	Serum	Spectrophotometry or reflectance photometry	2
General	Total cholesterol	Serum	Spectrophotometry or reflectance photometry	2
General	Total protein	Serum, plasma/other serous fluids	ISE potentiometry	2

General	Triglycerides	Serum	Spectrophotometry or reflectance photometry	2
General	Troponin T/ I	Serum	Lateral flow, chromatography	1
General	Uric acid	Serum	Spectrophotometry or reflectance photometry	2
General	Urinalysis	Urine	Spectrophotometry or reflectance photometry	2
General	Vitamin B 12	Urine / Serum	Chemiluminescent microparticle enzyme immunoassay	2
General	Vitamin D (25-OH)	Serum	Spectrophotometry or reflectance photometry	2
General	Whole blood lactate	Whole blood or plasma	Spectrophotometry or reflectance photometry	2
Disease Specific	Cancer: Alpha fetoprotein (AFP)	Plasma, serum	Immunoassay	3
Disease Specific	Cancer: BCR-ABL for cancer	Blood, marrow, biopsy	Genetic sequencing	3
Disease Specific	Cancer: Bence jones proteins urine test	Urine	Electrophoresis	3
Disease Specific	Cancer: Beta-2 microglobulin	Body fluids, serum, urine, CSF	PCR, Genomic sequencing	3
Disease Specific	Cancer: Beta Human Chorionic gonadotropin (HCG)	Serum	Lateral flow chromatographic immunoassay	2
Disease Specific	Cancer: Calcitonin test	Serum	ELISA	3
Disease Specific	Cancer: Cancer Antigen 15-3 (CA 15-3)	Plasma, serum	Immunoassay	3
Disease Specific	Cancer: Cancer antigen protein 125 (CA 125)	Plasma, serum	Immunoassay	3
Disease Specific	Cancer: Cancer antigen 19-9 (CA 19-9)	Plasma, serum	Immunoassay	3
Disease Specific	Cancer: Carcinoembryonic antigen (CEA)	Plasma, serum	Quantitative chemiluminescent Immunoassay	3
Disease Specific	Cancer: Epidermal growth factor receptors (EGFR)	Serum/tissue blocks	PCR, Genomic sequencing	3
Disease Specific	Cancer: Faecal Immunochemical test (FIT)	Stool	PCR	3
Disease Specific	Cancer: Faecal occult blood (FOB)	Stool	Immunoassay	3
Disease Specific	Cancer: Flow cytometry antibodies Panel	Blood, bone marrow, FNAs	Flow cytometry / Immunophenotyping	3

Disease Specific	Cancer: Genetic testing for BRCA1 or BRCA2	Blood, marrow	Immunoassay	3
Disease Specific	Cancer: KRAS mutation analysis test	Tissue blocks	PCR, Genomic sequencing	3
Disease Specific	Cancer: Lactate dehydrogenase (LDH)	Serum	Spectrophotometry / Reflectance photometry	3
Disease Specific	Cancer: Serum prostate-specific antigen (PSA)	Plasma, serum	Immunoassay	3
Disease Specific	Diabetes: Blood glucose testing	Whole blood, Plasma	Spectrophotometry, chromatography	2
Disease Specific	Diabetes: Glucose tolerance test	Whole blood, Plasma, Urine	Spectrophotometry, chromatography	2
Disease Specific	Diabetes: Glycosylated hemoglobin (HbA1C)	Whole blood	Spectrophotometry, chromatography	2
CLINICAL & FORENSIC TOXICOLOGY				
General	Alcohol analysis	Blood, urine, stomach, vomitus	Gas chromatography with headspace	3
General	Carboxyhemoglobin/ Carbon monoxide	Blood	Conway diffusion; blood gas analyzers	3
General	Formate concentrations (methanol)	Blood, Urine	LC-MS/Colorimetry	3
General	Heavy metal analysis (Pb, Hg, Mn, Cd, As)	Blood, Urine, Stomach	AAS, ICP-MS, ICP-OES, GC-MS, HPLC	3
General	Pesticide analysis (Organophosphate test)	Blood, urine, stomach, liver	LC-MS / Colorimetry	3
General	Methemoglobin/ nitrates	Blood	GC-MS, UV-Vis spectroscopy	3
General	Pharmaceutical Analysis	Blood, urine, liver, kidney, etc.	GC-MS, UV-Vis spectroscopy	3
FORENSIC BIOLOGY				
General	DNA analysis	Semen, Blood, Swabs, Hair, Bone	DNA Profiling	2
HAEMATOLOGY				
General	Automated Erythrocyte sedimentation rate (ESR)	Whole blood	Westergren / Wintrobe	1
General	Bone marrow aspirate (BMA)	Bone marrow	Microscopy	2
General	Coagulation: D-Dimer	Plasma (citrate)	Immunochromatographic, ELISA, etc.	2
General	Coagulation: PTT / APTT	Plasma (citrate)	Spectrophotometry, immunoturbidimetry	2
General	Coagulation: PT / INR	Plasma (citrate)	Chronometric, chromogenic, immunological	2

General	Coagulation: Specific factor assay (VII, VIII, IX)	Plasma	Chronometric, chromogenic, immunological	2
General	Full Blood Count	Whole blood	Automated blood cells count	2
General	Haemotacrit/Packed Cell Volume (PCV)	Whole blood	Centrifugation	1
General	Hemoglobin (Hb)	Whole blood	Hemoglobin meter	1
General	Manual Reticulocyte count	Whole blood	Microscopy	2
General	Peripheral blood film examination	Whole blood	Microscopy	2
General	Transferrin, iron ferritin and TIBC	Serum	Spectrophotometry, immunoturbidimetry	2
Disease Specific	Blood Grouping: ABO and Rh D grouping	Whole blood/Serum	Antigen-antibody reaction / agglutination	1 / 2
Disease Specific	Sickle cell testing	Whole blood	HB electrophoresis/IEF/HPLC	2
HISTOPATHOLOGY & CYTOLOGY				
General	Cytopathology panel	Smears, FNA, fluids	Microscopy; Pap stain; Exfoliative/Aspiration	2
General	Histopathology examination	Surgical tissues, Biopsies, Bone marrow	Microscopy; Routine/Special stains; IHC	3
General	Immunohistochemistry (IHC)	Smears, fluids, scrapings, blocks	Microscopy; Peroxidase ID; Labeling	3
General	Post-mortem examination	Cadaveric tissues	Microscopy; Tissue processing; Staining	2
Disease Specific	Cancer: Aflatoxins	Blood, urine, body fluids	HPLC, LC-MS, ELISA	3
Disease Specific	Cancer: Basic panel for IHC testing (solid tumors)	Formalin fixed tissue blocks	IHC-P (Multiplex or Sequential)	3
Disease Specific	Breast Cancer: Predictive panel for IHC testing (ER, PgR, HER-2, Ki-67)	Formalin-fixed tissue blocks	IHC-P (Multiplex or Sequential)	3
Disease Specific	Cancer: CD20 (for DLBCL & FL)	Formalin-fixed tissue blocks	IHC-P (Multiplex or Sequential)	3
Disease Specific	Cancer: Fine needle aspirations (FNA)	Swellings, lumps aspirates	Papanicolaou stain	3
Disease Specific	Cancer: Pap smear	Cervical swab	Papanicolaou stain	2
Disease Specific	Cancer: Visual inspection (VIA/L)	Physical exam of High Vagina (HV)	Manual/Visual observation	3
Disease Specific	Gastrointestinal H. Pylori infection	Gastric biopsy	H&E; Giemsa; ZN; Molecular	3

IMMUNOLOGY				
General	Anticardiolipin antibody test	Serum, plasma	Immunoassay	2
General	Anti-cyclic citrullinated peptide (ANTI-CCP)	Serum, plasma	ELISA, Immunoblot	2
General	Anti-double-stranded (ds) DNA	Serum, plasma	ELISA, Indirect Immunofluorescence	2
General	Anti-neutrophil cytoplasmic antibodies (ANCA)	Serum, plasma	Indirect Immunofluorescence, ELISA	2
General	Antinuclear antibody test (ANA)	Serum, plasma	Indirect Immunofluorescence, ELISA	2
General	Extractable nuclear antigen antibodies (ENA)	Serum, plasma	Immunofluorescence assay, ELISA	2
General	HLA test	Whole blood, Swab, Saliva	Flow cytometry, NAAT	3
General	Serum immunoglobulins (IgG, IgA & IgM)	Serum	Immunofluorescence, ELISA	2
General	Specific IgE	Serum, plasma	ELISA	2
Disease Specific	Arthritis: Rheumatoid factor (RF)	Serum, plasma, synovial fluid	Latex agglutination, ELISA	2
Disease Specific	Streptococcal: Anti-streptolysin O (ASOT)	Serum	Latex agglutination, ELISA	2
MYCOLOGY				
General	Fungal culture	Skin, nail, hair, biopsy	Manual culture, mass spectrometry	2
General	Microscopic examinations	Skin, nail, hair, biopsy	Microscopy	2
Disease Specific	Aspergillosis: Antibody detection	Serum	ELISA	2
Disease Specific	Aspergillosis: Antigen test	Serum, CSF, BAL	Galactomannan (GM) ELISA	2
Disease Specific	Aspergillosis: Culture	BAL, sputum, tracheal aspirate	Manual culture, mass spectrometry	3
Disease Specific	Cryptococcal meningitis: CrAg	Plasma, Serum, CSF	RDT (LFA); Culture & AST	2
Disease Specific	Cryptococcal Pneumonia: ID & AST	Sputum, aspirate, swap	Microscopy, Culture, AST	2
Disease Specific	Histoplasma: Antigen-Antibody detection	Serum	ELISA	2
Disease Specific	Histoplasma: Blood film microscopy	Whole blood	Microscopy	2
Disease Specific	Histoplasma: Culture	Whole Blood	Manual/Automated	2

Disease Specific	Pneumonia: NAATs	BAL/sputum/ tracheal aspirate	PCR; Immunofluorescence	2
PARASITOLOGY				
General	Microscopy (Concentration Method)	Stool, Urine, Rectal swab	Concentration / Centrifugation / Direct	1
Disease Specific	African trypanosomiasis	Blood, aspirations, scrapings	ELISA; Indirect FM; Microscopy	2
Disease Specific	Leishmaniasis: Rapid tests / Microscopy	Blood, Marrow, Spleen, Skin	RDT; Microscopy; ELISA; PCR	2 / 3
Disease Specific	Lymphatic Filariasis	Whole blood, Serum, Urine	Microscopy; RDT; NAATs/PCR	1 / 2
Disease Specific	Malaria: RDT / Smear / PCR	Whole Blood	RDT; Microscopy; PCR	1 / 3
Disease Specific	Onchocerciasis: Skin snip biopsy	Skin	Microscopy (Direct visualization)	1
Disease Specific	Schistosomiasis	Stool, Urine, Serum	Kato Katz; ELISA; Microscopy	1 / 2
VIROLOGY				
Disease Specific	Chikungunya: NAATs/Antibody detection	Serum, plasma, whole blood	PCR; ELISA	3
Disease Specific	Coronavirus (COVID-19): Antigen / NAATs	Nasal swabs, respiratory fluids	LFA; PCR; Genome sequencing	1 / 2 / 3
Disease Specific	Crimean Congo fever: NAATs/Antibody	Serum, blood, plasma	ELISA	3
Disease Specific	Dengue: RDTs / NAATs / Antibody	Blood, serum, plasma, CSF	PCR; ELISA	2 / 3
Disease Specific	EBOLA virus Disease: NAATs	Blood, serum, plasma	PCR	3
Disease Specific	Hepatitis A: RDT / ELISA / Virus detection	Serum, whole blood, plasma	LFA; ELISA; PCR	1 / 2
Disease Specific	Hepatitis B: HBsAg / HBcAb / Virus detection	Blood, plasma, serum	RDT; ELISA; PCR	1 / 2
Disease Specific	Hepatitis C: Antibody / Virus detection	Blood, plasma, serum	RDT; ELISA; PCR	1 / 2
Disease Specific	Hepatitis E: Antibody-RDT	Blood, plasma, serum	Lateral flow immunochromatography	1
Disease Specific	HIV infection: RDT / CD4 / Viral Load	Blood, serum, buccal, plasma	RDT; Flow cytometry; PCR; Sequencing	1 / 2 / 3
Disease Specific	Human Papilloma virus: DNA testing	Cervical/Vaginal swabs	RDT; PCR	1 / 2
Disease	Influenza: RDT /	Nasopharyngeal, nasal,	Hemagglutination; PCR	2 / 3

Specific	Hemagglutination / NAATs	throat swabs		
Disease Specific	Lassa fever: NAATs/Antibody detection	Serum, blood, urine, stool, swabs	PCR; ELISA	3
Disease Specific	Marburg virus disease: NAATs/Antibody	Blood, serum, swabs, tissue	PCR; ELISA; LFA	1 / 2 / 3
Disease Specific	Measles: Antibody / NAATs	Swabs, urine, blood, serum	PCR; ELISA	2 / 3
Disease Specific	Mpox: NAATs	Blood, crust, lesion material	PCR	3
Disease Specific	Mumps: NAAT / Antibody	Buccal swab, Serum	PCR; ELISA	2
Disease Specific	Oral/Genital herpes: HSV type 1 & 2	Blood, swabs (nasal, rectal)	PCR	3
Disease Specific	Poliomyelitis: Isolation / NAATs	Stool, serum, plasma, CSF	Cell Culture; PCR	3
Disease Specific	Rift valley fever: NAATs/Antibody	Serum, plasma, whole blood	PCR	3
Disease Specific	Rotavirus: RDT / Antigen-Antibody	Stool	LFA; PCR	1 / 3
Disease Specific	Rubella: RDT / Enzyme immunoassay	Serum	LFA; ELISA	1 / 2
Disease Specific	West Nile fever: NAATs/Antibody	Blood, serum, CSF, tissue	ELISA	3
Disease Specific	Yellow fever: NAATs/Antibody	Blood, serum, plasma	PCR	3
Disease Specific	Zika Virus Disease: NAATs/Antibody	Blood, plasma, urine, CSF, semen	PCR; ELISA	3

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8. National Guideline for the Integration of Medical Laboratory Services and System First Edition (August 2024)
9. National Guideline for the Implementation of Medical laboratory Quality Management Systems First Edition (October 2025)

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NIGERIA ESSENTIAL DIAGNOSTICS LIST (N E D L)

OPERATIONAL PLAN
2026 – 2028

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1.0 INTRODUCTION

The Nigeria Essential Diagnostic List (NEDL) provides a structured pathway to strengthen Nigeria's diagnostic ecosystem by ensuring that essential diagnostics are available, affordable, and accessible at the point of need. Its successful implementation requires a coordinated system-wide approach that integrates governance, regulation, workforce development, service delivery, and financing. It also serves as the national framework for prioritizing procurement and delivering essential diagnostic services across all levels of care.

Diagnostics are the cornerstone of effective healthcare, enabling early detection, treatment, monitoring, and prevention of diseases. Globally, nearly 47% of the population has limited access to essential diagnostics, and Nigeria faces similar challenges, particularly in rural settings. The implementation of this Operational Plan is expected to improve access to quality-assured diagnostics, strengthen Nigeria's laboratory network, enhance disease surveillance and outbreak response, support Universal Health Coverage, and contribute to improved health outcomes for all Nigerians.

The successful implementation of the NEDL requires a coordinated, system-wide approach, addressing:

- Governance and leadership structures
- Advocacy, communication, and stakeholder engagement
- Regulation and quality assurance of in-vitro diagnostics (IVDs)
- Laboratory workforce capacity and distribution
- Service delivery and supply chain optimization
- Monitoring, evaluation, and digital health systems
- Sustainable financing and resource mobilization

This operational plan outlines strategic objectives, key activities, responsible institutions, and timelines to guide the nationwide implementation of NEDL over the three years (2026–2028).

2.0 STRATEGIC OBJECTIVES AND IMPLEMENTATION STRATEGIES

STRATEGIC OBJECTIVE 1: Strengthen Governance, Leadership & Institutional Coordination for NEDL Implementation

This objective aims to strengthen governance and leadership structures to guide the effective implementation of the Nigeria Essential Diagnostics List (NEDL). It focuses on ensuring effective coordination and oversight at national and sub-national levels, harmonizing policies and regulatory frameworks, and ensuring sustainable financing. Through these measures, it

provides a structured, accountable, and sustainable platform for the nationwide adoption and long-term integration of NEDL within the health system. At the end of the implementation period, States should integrate NEDL into their Annual Operational Plan (AOPs).

Rationale: Strong governance ensures coordinated adoption, regulatory compliance, and sustainable integration of NEDL into health systems. Both national and state-level leadership structures are crucial for monitoring, evaluation, and policy harmonization.

Key Activities and Indicators

To establish structured oversight, accountability, and sustainable leadership mechanisms at national and state levels to guide NEDL implementation, MLSD will carry out the following activities:

S/N	Activity	Indicator	Target	Timeline	Means of Verification
1	Establish a reporting & feedback mechanism with states	States report quarterly	36 + FCT	2026-2028	Feedback report
2	Integrate NEDL oversight into State AOPs	States incorporating NEDL	36 + FCT	2026-2028	Approved AOPs
3	Engage private labs for NEDL adoption	Private labs implementing NEDL	50 facilities/ state	2026–2028	Oversight reports
4	Strengthen collaboration with NHIA/SHIS to integrate all tests listed in the NEDL into the insurance benefit package and review the tariff for diagnostic tests	% of NEDL test listed in NHIA/SHIS benefit package	100%	2026	NHIA benefit package

STRATEGIC OBJECTIVE 2: Advocacy, Awareness & Stakeholder Engagement

To establish National Essential Diagnostics List (NEDL) implementation as a cornerstone of Nigeria's health system, the Federal Ministry of Health and Social Welfare, through the Medical Laboratory Services Division, will lead a high-level advocacy and communication program. This would focus on fostering deep political commitment and institutional ownership at federal, state, and local levels by engaging policymakers, development partners, and professional bodies. By utilizing technical guidance from National and State Laboratory Technical Working Groups, the program will deploy a comprehensive awareness framework designed to sensitize stakeholders, stimulate demand for quality diagnostics, and align procurement processes with national priorities. At the end of the implementation period, 85% of facilities across the nation should institutionalize NEDL as the definitive roadmap for diagnostic prioritization, ensuring resource mobilization, nationwide uptake, and the long-term sustainability of essential laboratory services across Nigeria.

Rationale: Advocacy and awareness are foundational to implementation. Without stakeholder buy-in, dissemination, resource mobilization, and compliance with quality standards will be limited. Coordinated advocacy ensures that the NEDL is institutionalized as the guiding framework for diagnostic prioritization and service delivery.

Key Activities and Indicators

S/N	Activity	Indicator	Target	Timeline	Means of Verification
1	Printing of NEDL documents	Copies distributed	500	2026	Distribution log
2	Ministerial unveiling and National dissemination workshop of NEDL	NEDL officially launched	1	2026	Event report, social media
3	Zonal dissemination/ advocacy workshops	Workshop conducted	6 zones	2026	Workshop reports
4	Upload NEDL via official website	Online publication accessible	100%	2026	Website links

Stakeholder Engagement

MLSD will engage appropriate stakeholders to promote broad awareness, ownership, and political commitment for NEDL across federal, state, and local levels, ensuring alignment among policymakers, healthcare providers, professional associations, development partners, and communities. Key stakeholders to be engaged and their roles in NEDL implementation include:

- **Government Institutions:** Federal and State Ministries of Health and social welfare lead advocacy and policy alignment.
- **Professional Bodies & Academia:** Provide technical guidance, training, and research support.
- **Private Sector & Industry:** Manufacturers and distributors ensure availability and compliance.
- **Civil Society & Communities:** Drive awareness, demand, and accountability.
- **Development Partners & Donors:** Support technical assistance, capacity building, and investments.

STRATEGIC OBJECTIVE 3: Availability & Accessibility of Essential Diagnostics

To ensure high-quality, affordable diagnostics are accessible to all Nigerians, particularly in primary healthcare, the FMoHSW/MLSD will lead the nationwide dissemination of the National Essential Diagnostics List (NEDL). The FMoHSW will coordinate the production and distribution of hard copies to all Stakeholders and healthcare facilities, while simultaneously circulating electronic versions of the document through official government internet and social media platforms and professional networks to guarantee ease of access. This strategic rollout aims to bridge the global diagnostic gap, where nearly half the population lacks access to adequate testing services, by accelerating the deployment of portable Point-of-Care (POC) diagnostics that deliver immediate, actionable results. By integrating the complete package of the NEDL into the national supply chain and health financing frameworks, the initiative will reduce patient travel time, improve accessibility, enhance disease detection, and promote long-term affordability and sustainability across the entire health system. At the end of the implementation period, 90% of the NEDL package should be integrated into the national supply chain and health financing framework which should increase UHC by 20%.

Rationale: Limited access to diagnostics leads to delays in disease detection, treatment, and monitoring. Improving access to diagnosis and strengthening service delivery and supply chain mechanisms reduces travel time for patients and enhances health outcomes.

Key Activities and Indicators

MLSD will implement the below activities to ensure essential, high-quality diagnostics are available, affordable, and accessible nationwide, especially in primary care and low-resource settings.

S/N	Activity	Indicator	Target	Timeline	Means of Verification
1	Conduct facility needs assessments	Facilities assessed	100%	2027	Assessment reports
2	Procure & distribute essential diagnostic equipment	Facilities with ≥90% availability	90%	2027	Logistics & inventory reports
3	Standardize laboratory layout & biosafety measures	Facilities meeting standards	80%	2028	QA audit reports
4	Ensure functional power & water supply	Facilities with uninterrupted services	90%	2027	Inspection reports
5	Deploy solar backup in rural facilities	Rural facilities covered	100%	2028	Maintenance logs
6	Integrate NEDL into national supply chain plans	Facilities integrated	100%	2026	Supply chain records
7	Implement stock monitoring (DHIS2)	Facilities reporting monthly	100%	2027	DHIS2 reports
8	Implement an early warning system for stock-outs	Stock-out alerts addressed	100%	Ongoing	EWS dashboard
9	Conduct quarterly logistics review meetings	Meetings held	Quarterly	Ongoing	Meeting minutes
10	Strengthen Integrated inspection systems	Facilities inspected	100 facilities	Annually	Inspection reports
11	Accredit vendors/suppliers	Accredited vendors published	1 national list	2027	Published list
12	Publish the validated IVD list document	List published	1 national	2027	Publication
13	Enforce biosafety compliance	Lab's meeting standards	90%	Annually	Audit reports

S/N	Activity	Indicator	Target	Timeline	Means of Verification
14	Harmonize regulatory framework with appropriate agency	Framework updated	1 national document	2027	MLSD records
15	Enroll all laboratories in EQA for the minimum test package conducted	% of labs enrolled in EQA	50%	2027	EQA records
16	Implement IQC at all laboratories	% of labs implementing IQC	50%	Ongoing	QA audit reports
17	Include NEDL implementation assessment as part of Routine periodic Data Quality Assessment (RDQA) activities	NEDL assessment incorporated in routine DQA activities	1	Annually	RDQA reports
18	Promote implementation of QMS and support ISO 15189 accreditation of test menus.	Number of laboratories accredited with ISO 15189	20 labs	Ongoing	MLSD accreditation records
19	Standardize testing SOPs across facility	% of laboratories using updated SOPs	37	2028	SOP audit reports

STRATEGIC OBJECTIVE 4: Regulatory Strengthening & Quality Assurance

The regulation of IVDs in-country should be strengthened by ensuring effective monitoring for quality compliance, use of pre-qualified products only, and application of appropriate sanctions for defaulters. The Federal Ministry of Health and Social Welfare should support the relevant regulatory agencies, including the Medical Laboratory Science Council of Nigeria, to ensure that all diagnostic products procured and deployed meet national quality standards.

To ensure that all NEDL services are accurate and reliable, the FMOH will ensure the strengthening of national Quality Assurance (QA) systems through the implementation of robust External Quality Assessment (EQA) schemes, proficiency testing, and standardized Quality Management Systems (QMS) across facilities. By institutionalizing Standard Operating Procedures (SOPs) and continuous quality improvement at both laboratories and Point-of-Care (POC) sites, the initiative ensures adherence to national and international performance standards. It strengthens Quality Management Systems (QMS), diagnostic practices, and enhances reliability, accuracy, and consistency of test results, better surveillance, and outbreak detection. This comprehensive approach enhances data systems for monitoring diagnostic performance, ultimately improving clinical decision-making and reinforcing the credibility of Nigeria's diagnostic network, ultimately improving patient outcomes and stronger health systems performance.

Rationale

- Strengthened regulatory systems protect public health by preventing substandard or unsafe diagnostic products from entering the health system.
- Continuous quality assurance improves diagnostic reliability and credibility.

Key Activities and Indicators

The following activities will be implemented to ensure all diagnostics included in NEDL meet national standards of quality, safety, and performance. The activities to be implemented are:

- Regulation of IVD
- Post Market Surveillance

S/N	Activity	Indicator	Timeline	Target	Means of Verification
1	Post Market Surveillance	Report on post-market surveillance conducted Number of non-compliant IVDs identified and reported	2026-2028	2	Report on post-market surveillance Number of Market sampling and testing reports Complaint/ feedback report
2	Regulation of (In vitro diagnostics IVDs)	% of IVD procured that meet national regulatory requirements	2026-2028	80-90%	IVD registration database

STRATEGIC OBJECTIVE 5: Resource Mobilization for Sustainable NEDL Implementation

Sustainable implementation of the NEDL requires adequate financing. Resource mobilization efforts will therefore focus on government budget allocation, partner engagement, health insurance integration, and private sector participation.

A diversified resource mobilization strategy will be pursued to reduce overreliance on external funding and strengthen domestic ownership. The strategy to be adopted by FMOH will include:

- **Domestic Financing:** Advocate for increased government budgetary allocation to diagnostics at federal and state levels, including ring-fenced funding for laboratory services and maintenance.
- **Health Insurance Financing:** Leverage NHIA and State Health Insurance Schemes to create predictable financing streams for essential diagnostics through benefit package inclusion and reimbursement mechanisms.
- **Donor and Partner Support:** Align partner investments with NEDL priorities to support infrastructure upgrades, training, quality assurance, and innovation.
- **Public–Private Partnerships (PPPs):** Explore PPP models to improve access to diagnostic technologies, expand service coverage, and strengthen supply chain efficiency.
- **Innovative Financing:** Promote pooled procurement, volume guarantees, and cost-sharing mechanisms to improve the affordability and sustainability of essential diagnostics.
- **Effective Utilization:** Establish mechanisms to promote equitable distributions and optimal utilization, routine maintenance and monitoring of procured diagnostics equipment and consumables.

STRATEGIC OBJECTIVE 6: Monitoring and Evaluation of the Impact of Implementation of NEDL

Health facilities must be monitored to ensure the effective use of NEDL at different levels of care. The monitoring will be done by FMOH&SW in collaboration with States, implementing partners, and facility management. The report on such monitoring activities will be shared with relevant stakeholders. An end term evaluation will be conducted on the implementation of the NEDL. This will strengthen and modernize digital health information systems to deliver accurate, real-time, and high-quality data that drives smarter decisions at every level of care. This activity will enhance interoperability across platforms, harmonize reporting frameworks, institutionalize robust data quality assurance processes, and build capacity for effective data analysis and use. By turning routine data into strategic intelligence, it will improve accountability, optimize resource utilization, and accelerate performance improvement across the health system.

S/N	Activity	Indicator	Target	Timeline	Data Source
1	Integrate NEDL indicators into DHIS2	% of indicators captured in DHIS2	100%	4th quarter of 2027	DHIS2 database
2	Develop national diagnostics dashboard	Dashboard operational	1 dashboard	2nd quarter of 2027	MLSD IT records
3	Strengthen eN-LIS Functionality	% of facilities reporting electronically	—	4th quarter of 2028	eN-LIS system logs
4	Conduct quarterly data review	Number of meetings held	12	4th quarter of 2028	Review meeting minutes

Also, the activity below would drive evaluation & learning by tracking key indicators through strengthened M&E and digital systems. Insights from data are turned into action, ensuring programs continuously improve and decisions are evidence-based.

S/N	Activity	Indicator	Target	Timeline	Data Source
1	Conduct mid-term evaluation	Evaluation completed	1	2nd quarter of 2027	Evaluation report
2	Conduct end-line evaluation	Evaluation completed	1	4th quarter of 2028	End-line report
3	Document best practices	Number of case studies published	3	2026 - 2028	MLSD publications
4	Publish annual NEDL performance reports	Number of reports published	3	2026 - 2028	MLSD annual reports

INSTITUTIONAL ROLES AND COORDINATION MECHANISMS

SN	Institution	Roles
1	FMoH&SW	a) Oversee the coordination and implementation b) Monitor the implementation of NEDL c) Evaluation of the impact of the implementation of NEDL d) Develop a budget for monitoring and evaluation of the impact of the implementation of NEDL e) e) Provide adequate budgetary allocation and mobilize resources for implementation of NEDL
2	SMoH	Provide budgetary allocation and mobilize resources to capture: a. Procurement of IVDs b. Appropriate equipment. c. Capacity building of staff
3	NPHCDA	a) Facilitate the implementation of at least the basic minimum package of IVD at the PHC level b) Provide IVDs for use at PHCs
4	NHIS/SHIA	Provide insurance cover for laboratory testing with a full package of IVD captured for each level.
5	Facilities	a) Implement the recommendation of NEDL specific for each facility level. b) Provide adequate budgetary allocation and engage relevant stakeholders to support NEDL
6	Funders, Development / Implementing Partners and Private sectors	Resource mobilization, support appropriate innovation, research, provision of funding support for implementation as recommended by FMOH & SW

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