



Nigeria Health Information System Policy

FEDERAL MINISTRY OF HEALTH

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ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
DPRS	Department of Planning, Research and Statistics
FMoH	Federal Ministry of Health
HDCC	Health Data Consultative Committee
HDGC	Health Data Governance Council
HIS	Health Information Systems
HIV	Human Immunodeficiency Virus
HMH	Honourable Minister of Health
LGA	Local Government Area
MICS	Multiple Indicator Cluster Survey
MMR	Maternal Mortality Rate
NACA	National Agency for the Control of AIDS
NAFDAC	National Agency for Food and Drug Administration and Control
NBS	National Bureau of Statistics
NCH	National Council of Health
NHFL	National Health Facility List
NHIS	National Health Insurance Scheme
NHMIS	National Health Management Information System
NIRS	National Indicator Reference Sheet
NPC	National Planning Commission
NPHCDA	National Primary Healthcare Development Agency
NPI	National provider Identifier
NPopC	National Population Commission
RHIS	Routine Health Information Systems
SACA	State Agency for the Control of AIDS
SMoH	State Ministry of Health
SOP	Standard Operating Procedure
SPHCDA	State Primary Healthcare Development Agency
SWOT	Strength, Weaknesses, Opportunities, Threats
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organisation

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FOREWORD

Health Information Systems (HIS) is one of the six building blocks of the health systems. Health information systems (HIS) is made up of six components namely HIS resources, indicators, data sources, data management, information products and information use.

Previously, the components of the HIS in Nigeria have not been organised in such a way to provide reliable health information for effective and efficient planning, monitoring and evaluation of health programmes in the country. The National Council on Health (NCH) at its 55th session recognized the challenges and approved the revision of the National Health Management Information System (NHMIS) policy.

This new HIS policy addresses the challenges that have long plagued the HIS in Nigeria, including leadership and governance. The vision of the policy is "Health Information System that ensures evidence-based decision making for improved health status of Nigerians" while the Mission is "to produce timely, reliable and accurate data for informed policy making, programming, and resource allocation for health care" at the three tiers of government. An elaborate strategic plan to guide the implementation of the policy for a five-year period was also developed. The implementation of the HIS policy will be a turning point for the Health Information System which has hitherto been unable to provide adequate evidence for decision-making and to improve the health status of the population.

It is my hope that lessons learnt from the mistakes of the past will create synergy with current health systems strengthening initiatives for improved programme management, accountability and transparency.


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October, 2014

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ACKNOWLEDGMENT

The National Health Management Information System is intended to provide information on Health Service delivery and the health system that supports it in a timely and reliable manner. The efficiency and effectiveness of health services delivery is assessed by availability of quality, and timely information.

Though the NHMIS policy review was initiated by the Department of Planning Research and Statistics (DPRS) of the Federal Ministry of Health (FMoH), there was a broad stakeholders' involvement in the development of this Policy and the Strategy Plan. These include different departments across the FMoH (Public Health, Family Health, Hospital services), Ministries of Health of the 36 states and the Federal Capital Territory (FCT), local government health authorities, the National Primary Healthcare Development Agency (NPHCDA), the National Agency for Food and Drug Administration and Control (NAFDAC), the National Agency for the Control of AIDS (NACA), National Health Insurance Scheme (NHIS), the National Population Commission (NPopC), the National Planning Commission (NPC), and the National Bureau of Statistics (NBS). Special appreciation to all the stakeholders that contributed to the development of this policy especially the World Health Organization (WHO), United Nations Population Fund (UNFPA), Local and International Non Governmental Organizations, USAID-funded MEASURE Evaluation Project, Ministries, Departments and Agencies of Government.

The emphasis of the Health Information System Policy is the need to strengthen the HIS in the country, and promote the use of health information at community, health facilities, Local Government Areas, state and national level to foster ownership of health data generated at these levels and to impact the health system positively.


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September, 2014

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1.0 BACKGROUND

1.1 Introduction

The 2006 National Health Policy recognises that the Health Information System (HIS) is an integral and major thrust of the health system in Nigeria. The Policy noted that the state of health of the Nigerian population is assessed based on scanty and incomplete information. As such, the Policy recommends strengthening the health information system as a management tool for informed decision making at all levels of governance.

The National Health Management Information System (NHMIS) serves as the backbone for monitoring results achieved from the implementation of the National Strategic Health Development Plan (NSHDP). The availability of accurate, timely, reliable and relevant health information is the most fundamental step toward informed public health action. Therefore, government at all levels have overriding responsibility in ensuring the functionality of the HIS, which will in turn provide health data and information as a public good for utilisation by the populace. Decisions informed by evidence contribute to more efficient resource allocation and utilization. In addition, information about the quality and effectiveness of services can lead to reprogramming for better health outcomes.

The government therefore intends to invest in the standardisation and financing of health data infrastructure and in establishing and strengthening relevant organisational structures for Health Management Information System (HMIS) activities across all levels of

governance. Additionally, the government shall ensure; the use of appropriate information and communication technology infrastructure, capacity development, data collection, storage, analysis, dissemination and use of health information, as well as investment in essential monitoring systems, performance evaluation and relevant research.

The objectives of the earlier National Health Management Information System (NHMIS) policy included the provision of appropriate infrastructure, the establishment of mechanisms and procedures for collecting and analysing health data to provide needed information to: i) assess the state of the health of the population; ii) identify major health problems; iii) set priorities at the local, state and national levels; iv) monitor progress towards stated goals and targets of the health services; v) provide indicators for evaluating the performance of the health services and their impacts on the health status of the population; vi) provide information to those who need to take action, feedback to data producers and inform the general public. These objectives need to be appropriately revised with recent developments in the health system and the increasing complexity of information systems that the government is buying into.

Currently, data collection exercise is fragmented, disease specific, inconsistent and often of low quality. The thrust of this revised policy is to accelerate and guide improvement. A major factor contributing to the current situation is that the burden of data collection falls mainly on health workers whose primary responsibility is service delivery. This has been accentuated as a result of severe shortage of available health work force across the three tiers of the health system. The absence of a good coordination and governance mechanism promotes duplication of efforts, poor quality data and further increases the burden on the available human resource.

The National Health Information System (NHIS) plays an

important role in ensuring that reliable and timely health information is available for operational and strategic decision-making that saves lives and promotes better health outcomes. The Nigeria health information system is comprised of multiple and diverse players; including Ministry of Health, National Population Commission, National Bureau of Statistics, National Agency for the Control of AIDS, and international development agencies. In order to be able to holistically address the health data problems in the country, it is necessary to integrate these multiple sources of data that may abound in different institutions. An integrated health information system (HIS) will provide the basis for public health professionals to look at the health system from a broader and more comprehensive view point. This would also help identify areas of interoperability between component parts of the information system for better judgment and decision making.

This document sets out an overarching policy for health information system in Nigeria and it defines the detailed requirements and expectations for both users and producers of HIS at all levels of the health system.

1.2 Rationale for the Policy

Realising the importance of data as the foundation of public health action, the Federal Ministry of Health put in place a

medical statistics system in the 1960s that evolved over time into the National Health Management Information System (NHMIS). However, due to underinvestment in the health system, the NHMIS has remained weak and unable to fulfill its mandate of health data collection, analysis, dissemination and use. This situation impact negatively on the ability of decision makers to identify problems and needs, track progress, evaluate the impact of interventions and make evidence-based decisions on health policies, programmes and resource allocation.

Nigeria's HMIS has evolved in a haphazard and fragmented way due to institutional weaknesses, disease-focused demands that are driven by donor requirements and international reporting obligations towards specific diseases like HIV/AIDS, Malaria and TB. These challenges have resulted in the distortion of the health information system with many programmes and institutions operating multiple and/ or parallel health information systems. Findings from a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis involving a cross-section of stakeholders, which was carried out in mid-2013, showed that the NHMIS was focused more on routine health data, and leaves out the other essential components of a comprehensive HIS. This policy addresses these issues, among others, and will serve as a guideline document to harmonise and integrate all other components of a functional HIS in Nigeria. In the interest of addressing the many challenges facing HMIS in Nigeria, key stakeholders have reached a consensus that strengthening the health information system in a holistic manner is critical to improving policy, planning and decision making in the health sector. As part of that move, the previous NHMIS policy document had to be reviewed with the aim of improving the performance of the system to respond better to the information need of the health sector.

2.0 Policy Framework

This HIS policy provides the framework for inter-sectoral, comprehensive and integrated structure for collection, collation, analysis, storage, dissemination and use of health and health-related data and information.

Health data are generated from government institutions at the federal, state and LGA levels using harmonised data resource tools. Key contributors to health-related data in Nigeria include National Population Commission (NPopC), National Bureau of Statistics (NBS), National Planning Commission (NPC), National Health Insurance Scheme (NHIS), National Primary Healthcare Development Agency (NPHCDA), National Agency for the Control of AIDS (NACA), Military and para-military organisations, private sector as well as multi-lateral and bilateral donor-funded organizations. The Department of Planning, Research and Statistics (DPRS) of the Federal Ministry of Health (FMOH) will drive the implementation of the HIS policy in Nigeria.

2.1 Policy Context

The National HIS policy has been developed within a framework that provides a sound basis for the design of a functional HIS that will guide continuous improvement in monitoring and evaluation of national health and social indices. This framework also supports continuous improvements in the Nigerian health system.

2.2 Strategic Thrust

Vision

Health Information System (HIS) that ensures evidence-based decision making for improved health status of Nigerians.

Mission

To produce timely, reliable and accurate data that will inform policy making, evidence-based decision and resource allocation for improved health care at all levels.

Goal

To institutionalise an integrated and sustainable HIS for policy formulation, programme management, and resource allocation regarding health and health related services to achieve improved health care delivery system at all levels in Nigeria.

Guiding Principles

1. To ensure that this policy addresses all national and sub-national HIS issues and concerns holistically, the policy is founded on the following principles:
GOVERNANCE AND ACCOUNTABILITY: Foster country leadership commitment and participatory ownership to sector-wide implementation of HIS that inform policy, planning, programming and decision-making for better health outcome.
2. STANDARDIZATION: Availability and use of uniform standard HIS tools and platform for data management at all levels including the private sector.
3. SUSTAINABILITY: Allocation and release of adequate HIS resources from government sources at all levels (human resources, infrastructure and budget) to equip and maintain functional, reliable and accessible HIS.

4. **INTEGRATION:** Facilitate necessary linkages, coordination and integration of all health and health related data sources from all stakeholders to create a robust overarching health information system
5. **PARTNERSHIP & INSTITUTIONAL SUPPORT:** Well-established strong partnership of all stakeholders, including the private sector, to support the viability and sustainability of the health information system.
6. **STEWARDSHIP:** Use of HIS products to guide strategic policy direction at all levels, to ensure accountability and transparency to all stakeholders.

2.3 HIS Priority Areas

Key identified priority area of the National HIS Policy includes:

- Data governance
- Data architecture, indicators and sources
- Data management, dissemination and use
- Data security

3.0 Data Governance

3.1 Rationale

Data governance involves decision-making and exercise of authority for health and health-related data within the health system. For effective management of health care services, reliable and appropriate data need to be continuously collected and analysed for health planning,

and programming and to inform improvement in the health of all Nigerians. To this effect, government at federal, state and LGA levels must provide effective leadership and governance in matters relating to the health information system.

Effective governance system for HIS requires appropriate policies, plans, programmes and legal framework that would guide implementation at all levels. Different data stakeholder groups at each level of governance must be properly defined. Rules of engagement must be defined with clearly defined terms of reference which describe how the different stakeholder groups work together harmoniously at federal, state and LGA levels. A clear function of effective data governance system is stewardship responsibilities to different stakeholders within and outside the health information system. Besides financial resources and physical infrastructure, availability and capability of human resources are pivotal to reliable and functional HIS. Although it is generally agreed that Nigeria has a good supply of diverse professionals, there is considerable inequity in the distribution of health workers between and within states; in almost all states, for example, most health workers are urban-based.

3.2 Policy statement

- Governments at all levels shall support HIS to provide data and information that facilitate accountability and transparency by making it readily accessible and usable.
- Government shall ensure effective coordination of the HIS at all the three levels of governance in Nigeria and maintain relationships with local, external, and international organisations

- Governments at all levels shall provide human, material and financial resources toward effective implementation of the HIS policy at federal, state and LGA levels.
- At least 2% of annual health and health-related institutions' budget at all levels shall be allocated for HIS
- At least 1% of annual health and health-related institutions' budget at all levels shall be allocated for data management governance
- All stakeholders, including bilateral and multilateral agencies and other international development agencies/programmes working at national and sub-national levels, shall support HIS activities through existing government structures.
- Performance of programmes/projects supported by international development organisations shall be assessed using the data obtainable from the approved national data collection system
- Commitments towards effective implementation of sector-wide HIS policy for improved policy formulation, planning, programming and decision making.
- An Executive Health Data Governance Council (HDGC) shall be established and maintained under the leadership of the Honourable Minister of Health (HMH). The membership of the Council shall consist of the Chief Executive Officers/heads of the following relevant Ministries, Departments and

- National primary Healthcare Development Agency (NPHCDA)
- National Agency for the Control of AIDS (NACA)
- National Agency for Food and Drug Administration and Control (NAFDAC)
- National Health Insurance Scheme (NHIS)
- National Planning Commission (NPC)
- National Population Commission (NPopC)
- National Bureau of Statistics (NBS)
- Development Partners' Group
- World Health Organisation (WHO)

A State Executive Health Data Governance Council (HDGC) shall be established and maintained under the leadership of the Honourable Commissioner for Health (HCH). The membership of the Council shall consist of the Chief Executive Officers/heads of the following relevant Ministries Departments and Agencies;

- State Primary Healthcare Development Agency (SPHCDA)
- Hospitals Management Board (HMB)
- State Agency for the Control of AIDS (SACA)
- Ministry of Local Government
- State Planning Commission (SPC)
- State Coordinator/Executive, National Population Commission State Population Commission
- State Ministry of Finance/Budget
- LGA Chairmen

- Data stewards who will provide technical support on data management appointed across the relevant agencies/MDAs to the Health Data Governance Council
- National and State Health Data Consultative Committee (HDCC) shall be established/strengthened as technical advisory group to the HDGC. The stewardship roles and responsibilities of the HDCC shall be defined with clear terms of reference. The membership of the HDCC shall comprise of the following officials and/or representatives of the following organisations:
 - At National Level
 - Health-related agencies
 - FMoH Programmes
 - Bilateral and multilateral agencies
 - National Bureau of Statistics
 - National Population Commission
 - HIS Platform Administrator
 - At State Level
 - SMOH Programmes
 - Bilateral & Multilateral Agencies
 - Hospitals Management Board
 - State Primary Healthcare Development Agency (SPHCDA)
 - State Statistical Agency
 - State Agency for the Control of AIDS

- National Population Commission
- Representative of Private Health Providers
 - The secretariat of the HDCC at the federal and state levels shall be the Department of Health Planning Research and Statistics in the Ministry of Health.

3.3 Thematic Objectives

- To strengthen HIS governance institutional structures and multi-sectoral data stakeholders for better coordination at federal, state and LGA levels
- Improved political commitment and leadership responsibilities towards a functional HIS at all levels for evidence-based decision making.
- Support improved resource allocation and release, management and accountability at all levels within the national, state and LGA health information systems

4.0 Data Architecture, Indicators and Sources

4.1 Rationale

For the purpose of establishing an appropriate architecture for HIS in Nigeria, standards must be set to govern which data is collected, how data is stored, arranged, retrieved, analyzed and put to use. Based on global best practices, the health information system will incorporate standards that will foster the operationalisation of the HIS as an enterprise. The enterprise architectural approach allows for easy integration and interoperability of different applications.

The health system in Nigeria obtains its data from several direct health sources as well as other health-related systems. Data sources are classified as either institutional or

population-based. Key relevant data sources include population census, vital statistics, surveys, (such as integrated sentinel surveys) service records, assessments, field research, integrated disease surveillance, and resource records such as National Health Accounts (NHA), human resource information system, and Logistics Management Information System (LMIS). Currently, data emanating from these decentralised structures have weak data linkages and sharing ability for informed decision making.

Health data in the country are generated and stored in more than one disparate source. While the greater part of institution-based data source management reside in the FMOH, all population-based data sources are domiciled in various data archives and repositories such as: National Data Archives (NADA), National Bureau of Statistics (NBS), National Population Commission (NPopC) and other partner International development agencies. To optimise availability of health information products and triangulated data that can be used by programme managers, policy and decision makers, a scalable health information data warehouse shall be established.

4.2 Policy Statement

- All institutional based data elements and indicators shall be collected in an integrated manner from the community, health facilities and LGAs to ensure cost-efficiency, promptness and completeness of data reporting.
- All in-country health development

partners and the private sector shall support the collection of data contained within the National Indicator Reference Document.

- FMoH in collaboration with all stakeholders shall develop and disseminate a core set of national indicators and data elements periodically.
- All non-routine health indicators collected by coordinating agencies shall be integrated into repository of the health Information system
- All requests for additions to the national indicators by stakeholder (civil society organisations, donors and partners) shall be communicated in writing to the HDGC for approvals.
- National Indicator Reference Sheet (NIRS) shall be revised every two (2) years to ensure that it is up-to-date, captures emerging new issues and well aligned with international best practices.
- Government shall maintain a robust, standardised and harmonised HIS platform that is accessible to all
- A national health data warehouse serving as central repository of integrated health data sources that is up-to-date and accessible to all shall be domiciled and managed by the Department of Health Planning, Research and Statistics, FMoH.
- All health and health related survey datasets and reports shall be warehoused with the FMoH within one year of completion of the survey.

4.3 Thematic Objectives

- To maintain and update a set of indicators with data elements that tracks the objectives of the National/State strategic Health Development Plans.
- To ensure application of the enterprise architecture to foster interoperability and data integration.
- To build sustainable partnerships and linkages between health and health-related constituencies.
- To maintain and regularly update a data warehouse and repository that is accessible at all levels.

5.0 Data Management, Dissemination and Use

5.1 Rationale

Health care providers are mainly concerned with the collection of routine health data with very minimal consideration for data management and administration. Data management encompasses collection, collation, compilation, conversion and storage of quality data from both primary and secondary sources. Data capture varies from one system to another, depending on the design and the number of data collection tools introduced into the system, which eventually determines the type and amount of data collected and collated.

Over the years, different agencies of government and development partners in Nigeria have developed varying types and numbers of data collection tools. Given the fact that some of these forms are to be completed by the already

overburdened health care providers, it often results in poor quality data which is of very limited use.

Furthermore, the existence of parallel data management systems among different agencies of government has created inefficient use of data for planning and decision making at federal, state and LGA levels. With an enterprise-wide HIS, there is tendency for increased data integration and interoperability that will facilitate better data utilisation for decision making.

5.2. Policy Statement

- Government at the federal level shall ensure standardisation and review of data collection tools periodically, at least after every two years of operationalisation.
- Government at all levels shall support provision of standardised and harmonized tools to all health facilities including private health facilities.
- Government at all levels shall ensure adherence to the implementation of National HIS Policy
- Government at the Federal level shall provide clear guidelines and Standard Operating Procedures (SOPs) on data flow and this shall be adopted by States and LGAs.
- Data management processes (capture, transmission and dissemination) shall be both by electronic and manual means.

- All health facilities (including secondary and tertiary as well as both public and private) shall provide monthly summary data using paper-based and electronic platform (where applicable) to the LGA where they are located. In addition, Secondary and tertiary health facilities are expected to send their data directly to the HIS cloud.
- Monthly summary forms from health facilities and communities within the LGAs shall be reported in timely manner, complete and shall stand the test of validity. LGAs shall provide their monthly summary reports not later than the 15th day of the following month.
- Government at all levels shall ensure regular dissemination of information and feedback mechanism for evidenced based decision-making, planning and management
- Government at the federal level shall ensure that all survey data are archived within the Department of Planning, Research and Statistics, Federal Ministry of Health

5.3 Thematic Objectives

- To ensure availability of quality data emanating from relevant sources
- To enhance free flow of data and information within the three tiers of governance and appropriate feedback mechanism

- To promote the culture of data demand and use for planning and decision making

6.0 Data Security

6.1 Rationale

The evolution of health information systems in Nigeria calls for more rigorous attention to data security. With the roll out of electronic platforms for the collection and archiving of data, necessary measures need to be put in place that will eliminate or minimise the chances of data loss and damage should there be an attack or natural disaster. In addition, the protection of the rights of citizens as well as ethical consideration in health research is vital to the overall success of the emerging HIS. As such, there is a need for the development of processes that will guarantee the maintenance of the integrity of the data which will ensure minimal loss of data in event of a calamity and also protect against unauthorized access to health information.

6.2 Policy Statements

- Paper and electronic records shall be stored and archived according to relevant SOPs
- Users of the national health data warehouse shall mandatorily consent to a data confidentiality and protection policy before access to available datasets.
- Physical security for all health data infrastructure

shall be ensured at federal, state, and LGA levels as well as health facilities.

- External request and release for data shall be documented in line with laid down rules and procedures. This request shall be directed to HMH at the National level and HCH at the State level.
- Effective data backup and archival mechanism shall be instituted in all data management processes.
- All electronically stored Health data and archives shall be protected by appropriate and up to-date software (e.g. antivirus, antimalware.)
- Appropriate disaster recovery plan shall be put in place
- Regular server audit shall be carried out

6.3 Thematic objective

- To provide physical and logical protection to stored data and archives that guarantee integrity, confidentiality and easy access to health information

7.0 Monitoring & Evaluation

7.1 Rationale

Monitoring and evaluation is a vital subset of the entire health information system. An efficient monitoring and evaluation system within the health information system will ensure improved knowledge management, evidence-based planning and decision making. The strengthening of the relationship between the M&E system and HMIS will enhance performance.

Data and information generated over time shall be used to evaluate the performance of the health information system. As programmes evolve, so do indicator data sets change; there is therefore a need to reflect these changes within the M&E framework of HIS. Performance of the health information system in terms of implementation must be periodically monitored and evaluated for improvement. The processes and outputs of the strategies and timeframe for implementation and integration of data collection and reporting must also be effectively monitored. National HIS assessments should be carried out using the HIS assessment tool/checklist to compare the initial assessment result (baseline) and the future gap analysis to evaluate progress made in the planned implementation.

7.2 Policy Statement

- Government at all levels shall put in place a system to monitor and evaluate the implementation of the health information system.
- There shall be standard set of indicators to monitor the performance of HIS
- Monitoring and evaluation findings and related research studies shall be disseminated to all tiers of government, various sectors, development partners and the general public to inform relevant actions.

7.3 Thematic Objective

To strengthen the health information system for improved performance based on international best practices.