



# **FEDERAL MINISTRY OF HEALTH**

**DEPARTMENT OF HEALTH PLANNING AND RESEARCH**

***NATIONAL HEALTH MANAGEMENT INFORMATION SYSTEM  
(NHMIS) UNIT***

***REVISED POLICY-PROGRAMME AND STRATEGIC PLAN OF ACTION***

## FOREWORD

For effective management of health care services, efficient National Health Management Information System (NHMIS) is required. Government mandate requires that a National Health Information System (NHIS) shall be established by all the governments of the federation to be used as a management tool to support evidence based decision making. In accordance with the recent initiatives for Health Sector Reform and in recognition of the first Resolution of Extra-ordinary Meeting of the National Council on Health (NCH) in December 2003, the Federal Ministry of Health (FMOH) has initiated a review process anticipated to lead to a NHMIS that would facilitate efficient, effective and accurate planning and evidence based decision-making

With support from the U.K. Department for International Development (DFID) through the PATHS programme, a multi-disciplinary Pre—consultation Team on NHMIS reform made up of National and International Consultants conducted interviews with major relevant Donors, International Organizations, Federal Ministry of Health Departments and programs, Health parastatals, Federal Office of Statistics (FOS), National Population Commission (NPC) and Private Sector Organisations regarding their own health information needs, indicators and suggestions for the process to be undertaken to develop consensus on NHMIS reform. The team visited selected States from the six geo-political zones of the country to review NHMIS related activities. A stakeholders meeting of Health Data Consultative Committee (HDCC) followed on 1<sup>st</sup> and 2<sup>nd</sup> of July 2004. This meeting, which was well attended, constituted a number of committees in order to realize the reform goals of the NHMIS. One of the committees was charged with the revision of the NHMIS Policy document.

The guiding principle for the revised Health Management Information System is to keep things simple, practicable and sustainable. The data collection format consists of a fewer number of summary forms for communities, health facility, LGA and states including FCT and health facility register which serves as tally sheets.

The NHMIS three-year strategic plan of action, which is aimed at advancing the programme objectives of the NHMIS forms a part of this document. It offers various entry points for intervention and active partnership to governments at all levels, the organized private sector, the NGOs and international organizations, to develop and strengthen the public health information system during the next three to five years. It is my hope that all our collaborators will identify with our mission and facilitate the implementation of activities contained in this NHMIS programme document.



Prof. Eyitayo Lambo  
The Honourable Minister of Health  
Abuja  
December 2006

## **PREFACE**

National Health Management Information System (NHMIS) became operational in 1999. Since then, it has not been able to meet adequately the expectations of the government and the people. Data collection forms are often not completely and accurately filled due to complaints that they are complex and cumbersome. This informed the reason why revision of the system became necessary in order to meet the need for informed decision making.

Current Federal Government Health Sector Reform (HSR) initiatives, prominently highlighted inadequacies in the NHMIS, and a significant number of the strategic objectives and components will have to be supported by an efficient NHMIS. NHMIS has to be re-positioned and strengthened to track Millennium Development Goals (MDG)

Between October and December 2004, several technical committee meetings were held to review and put modalities in place for the implementation of consensus reached at the mid year Health Data Consultative Committee (HDCC) meeting. Highlights of the consensus included the following;

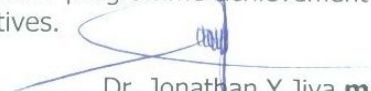
- Review of the existing policy documents on NHMIS
- Agree on roles and functions of the newly established Technical Working Group (TWG), which is a consortium of qualified professionals that would provide technical assistance and inputs to the NHMIS process on a continuous basis.

- Assessment and review of Health Indicators and health data systems.
- Revision of routine NHMIS forms, registers and manuals
- Printing of pilot forms and manuals and the adoption of final copy for production and usage.
- Donor/Partners resource mobilization
- Advocacy and sensitization at all levels of health care delivery.
- Cascaded training of all stakeholders on NHMIS
- Budgetary line and release of funds by all tiers of government and other stakeholders for NHMIS.

In this revised system community health information has been incorporated into the erstwhile facility based Health Information System. The PHC information system is now streamlined into HMIS to give a unified comprehensive system without losing track of keeping information needs basic and indicators minimal.

The emphasis on review of the information system is the appreciation of the need for and use of health information at the community, health facilities, LGAs and States as to foster the ownership of the HMIS programme at these levels.

It is hoped that the lessons learnt from the mistakes of the past will create synergies with current system review for better programme achievement in the current reform initiatives.

  
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January 2007

## INTRODUCTION

The new National Health Policy has been formulated within the context of:

- the Health Strategy of the New Partnership for Africa's Development (NEPAD), a pledge by African leaders based on a common vision and a firm conviction that they have a pressing duty to eradicate poverty and place their countries individually and collectively on a path of sustainable growth and development;
- the Millennium Development Goals (MDGs) to which Nigeria, like other countries, has committed to achieve;
- the National Economic Empowerment and Development Strategy (NEEDS) which is aimed at re-orienting the values of Nigerians, reforming government and institutions, growing the role of the private sector, and enshrining a social charter on human development with the people of Nigeria; and
- the development of a comprehensive health sector reform programme as an integral part of the NEEDS.

### 1.1 Underlying Principles and Values

- the principles of social justice and equity and the ideals of freedom and opportunity that have been affirmed in the 1999 Constitution of the Federal Republic of Nigeria;

- health and access to quality and affordable health care is a human right;
- equity in health care and in health for all Nigerians is an ideal goal to be pursued;
- primary health care (HC) shall remain the basic philosophy and strategy for national health development;
- good quality health care shall be assured through cost-effective interventions that are targeted at priority health problems;
- a high level of efficiency and accountability shall be maintained in the development and management of the national health system;
- effective partnership and collaboration between various health actors shall be pursued while safeguarding the identity of each;
- since health is an integral part of overall development, inter-sectoral cooperation and collaboration between the different health-related Ministries, development agencies and other relevant institutions shall be strengthened; and a gender sensitive and responsive national health system shall be achieved by mainstreaming gender considerations and implementation of all health programmes.

## 1.2 Overall Policy Objective

To strengthen the national health system such that it will be able to provide effective, efficient quality, accessible and affordable health services that will improve the health status of Nigerians through the achievement of the health-related Millennium Development Goals (MDGs).

## 1.3 Targets

The main health policy targets are the same as the health targets of the Millennium Development Goals, namely:

- reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate;
- reduce by three-quarters, between 1990 and 2015, the maternal mortality rate;
- to have halted by 2015 and begun to reverse the spread of, HIV/AIDS;
- to have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.

## 1.4 Health Policy Declaration and Commitments

- i. The federal, state, local governments and private health sector of Nigeria hereby commit themselves and all the people to intensive action to attain the goal of health for all citizens, that is, a level of

health that will permit them to lead socially and economically productive lives at the highest possible level.

- ii. All Governments of the Federation are convinced that the health of the people not only contributes to better quality of lives but is also essential for the sustained economic and social development of the country as a whole.
- iii. The people of this nation have the right to participate individually and collectively in the planning and implementation of their health care. However, this is not only their right, but also their solemn duty.
- iv. Primary health care is the key to attaining the goal of health for all people of this country. Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full involvement and at a cost that the community and state can afford to maintain at every stage of their development in the spirit of self-reliance. It shall form an integral part both of the national health system, of which its central function and main focus is the overall social and economic development of the community.
- v. All Governments and the people are determined to formulate strategies and plans of action,

particularly action to be taken by governments, to re-launch and sustain primary health care in accordance with this national health policy.

- vi. All Governments agree to co-operate among themselves in a spirit of partnership and service to ensure primary health care for all citizens, since the attainment of health by people in any area directly concerns and benefits others in the Federation.
- vii. The Federal Government undertakes:-
- to provide policy guidance and strategic support to States, local governments and the private sector in their efforts at establishing health systems that are primary health care oriented and are accessible to all their people;
  - to coordinate efforts in order to ensure a coherent, nationwide health system;
  - to provide incentives in selected health fields to the best of its economic ability to promote this endeavour; and
  - in collaboration with the State and Local Governments and the organized private sector as well as Non Governmental Organizations (NGOs), to undertake the overall responsibility for monitoring and evaluation of the implementation of the health strategy.

- viii. All Governments accept to exercise political will to mobilize and use all available health resources rationally.

### **1.5 Major Thrusts of Health Policy**

The major thrusts of the National Health Policy relate to:

- National Health System and Management
- National Health Care Resources
- National Health Interventions
- National Health Information System
- Partnerships for Health Development
- Health Research
- National Health Care Laws

## NATIONAL HEALTH SYSTEMS AND MANAGEMENT

### 2.1 A Comprehensive National Health System

- (a) The goal of the national health policy shall be to establish a comprehensive health care system, based on primary health care that is promotive, protective, preventive, restorative and rehabilitative to every citizen of the country within the available resources so that individuals and communities are assured of productivity, social well being and enjoyment of living.
- (b) Guaranteed minimum health care package for all Nigerians shall be the mobilizing target. As a long-term policy and within available resources, the governments of the Federation shall provide a level of health care for all citizens to enable them to achieve socially and economically productive lives.

### 2.2 Health System Based on Primary Healthcare

The health system, based on primary health care, shall include as a minimum:-

- an articulated programme on information, education and communication (IEC), which should also include specific programmes on school health services;
- promotion of food supply and proper nutrition;
- an adequate supply of safe water and basic sanitation;

- maternal and child health care, including family planning. In this context, family planning refers to services offered to couples to educate them about family life and to encourage them to achieve their wishes with regard to: preventing unwanted pregnancies; securing desired pregnancies; spacing of pregnancies; and limiting the size of the family in the interest of the family health and socio-economic status. The methods prescribed shall be compatible with their culture and religious beliefs.
- immunization against the major infectious diseases;
- prevention and control of locally endemic and epidemic diseases;
- appropriate treatment of common diseases and injuries;
- provision of essential drugs and supplies;
- promotion of a programme on mental health; and
- promotion of a programme on oral health.

The health system shall:-

- reflect the economic conditions, socio-cultural and political characteristics of the communities as well as the application of the relevant results of social, biomedical, health system research and public health experience;
- address the main problems in the communities, providing promotive, preventive, curative and rehabilitative services accordingly;
- involve, in addition to the health sector, all related sectors and aspects of state and community

development, in particular agriculture, animal husbandry, food industry, education, housing, transportation, public works, communications, water supply and sanitation and other sectors, and demand the coordinated efforts of all those sectors;

- promote maximum community and individual self-reliance and participation in the planning, organization, operation and control of primary health care, making full use of Local, State, Federal Government and other available resources; and
- to this end, develop, through appropriate education and information, the ability of communities to participate.

### **2.3 An Integrated and Co-ordinated National Health Care System**

- Federal, State and Local Governments shall support, in a coordinated manner, a three-tier system of health care. Essential features of the system shall be its comprehensiveness, multisectoral inputs, community involvement and collaboration with non-governmental providers of health care.
- In the Nigerian Constitution of 1963, health is on the concurrent list of responsibilities with the exception of international health, quarantine and the control of drugs and poisons which is exclusively the responsibility of the Federal Government. The Constitution also assigned

specific responsibilities to the State and Local Governments.

- The Nigerian Constitution of 1999, which is the operative document, is almost silent on health care delivery except the vague reference made on Local Governments' responsibility for Health. In section 45 the constitution also made provision for the over riding of individual rights, if it is in the interest of, among other things, public health. It is therefore imperative that a National Health Act be enacted to state the roles and responsibilities of each tier of government.
- The national health care system is built on the basis of the three-tier responsibilities of the Federal, State and Local Governments. Schedules of responsibilities to be assigned to the Federal, State and Local Governments respectively, shall in consultation with all tiers of government, be prepared for approval by the Federal Ministry of Health.
- In order to ensure that the primary health care services are appropriately supported by an efficient referral system, Ministries of Health shall review the resources allocated to, and the facilities available at, the secondary and tertiary levels. Whilst high priority shall be accorded to primary health care, within available resources, the secondary and tertiary levels shall be strengthened. The long-term goal is that eventually all Nigerians shall have easy access not

only to primary health care facilities but also to secondary and tertiary levels as required. Particular attention shall be placed on the needs of remote and isolated communities, which have special logistic problems in providing access to the referral system.

- In discharging the responsibilities assigned under the Constitution and/or National Health Act, the Federal, State and Local Governments shall coordinate their efforts in order to provide the citizens with effective and efficient health services at all levels.
- Governments of the Federation shall work closely with voluntary agencies and the private sector to ensure that the services provided by these other agencies are in consonance with the overall national health policy. The establishment of National Hospital Services Agency would further enhance the coordination.
- Mechanisms shall be established to ensure that all sectors related to health and all aspects of national and community development, in particular, agriculture, animal husbandry, rural development, food, industry, education, social development, housing, transportation, water supply, sanitation and communications are involved and their health related activities are coordinated.

## **2.4 Voluntary Agencies and the Private Sector**

The non-governmental health sector shall comprise:

- A variety of non-governmental agencies, especially religious bodies that provide health care including both curative and preventive services.
- Private practitioners that also provide care.

## **2.5 Community Involvement**

- (a) Governments of the Federation shall devise appropriate mechanisms for involving the communities in the planning and implementation of services on matters affecting their health.
- (b) Such mechanisms shall provide for appropriate consultations at the community level with regard to local health services on the basis of increasing self-reliance. The traditional system and community organizations (cultural and religious associations) shall be fully utilized in reaching the people.
- (c) The Federal and State Ministries of Health shall consult accredited groups and associations, which represent the various interests within the society, including the various professional associations.
- (d) The Armed Forces and Police Barracks are usually not taken care of by the Local Government Areas where they are situated. The Ministry of Defence

and Police shall therefore be responsible for the health care of the citizens living in such communities.

## 2.6 Levels of Care

National Health Care System shall be developed at three levels viz:

### (a) Primary Health Care

- i. Primary Health Care shall provide general health services of preventive, curative, promotive and rehabilitative nature to the population as the entry point of the health care system. The provision of care at this level is largely the responsibility of Local Governments with the support of State Ministries of Health and within the overall national health policy. Private sector practitioners shall also provide health care at this level.
- ii. Noting that traditional medicine is widely used, that there is no uniform system of traditional medicine in the country but that there are wide variations with each variant being strongly bound to the local culture and beliefs, the local health authorities shall, where applicable, seek the collaboration of the traditional practitioners in promoting their health programmes such as nutrition, environmental sanitation, personal hygiene, family planning and

immunizations. Traditional health practitioners shall be trained to improve their skills and to ensure their cooperation in making use of the referral system in dealing with high risk patients. Governments of the Federation shall seek to gain a better understanding of traditional health practices, and support research activities to evaluate them. Practices and technologies of proven value shall be adapted into the health care system and those that are harmful shall be discouraged.

### (b) Secondary Health Care

The Secondary health care level shall provide specialized services to patients referred from the primary health care level through out-patient and in-patient services of hospitals for general medical, surgical, paediatrics, obstetrics and gynaecology patients and community health services. It shall also serve as administrative headquarters supervising health care activities of the peripheral units. Secondary health care shall be available at the district, division and zonal levels as defined by the authorities of the State. Adequate specialized supportive services such as laboratory, diagnostic, blood bank, rehabilitation, and physiotherapy shall be provided.

- (c) Tertiary Health Care  
Tertiary health care, which consists of highly specialized services, shall be provided by teaching hospitals and other special hospitals which provide care for specific disease conditions or specific group of patients. Care should be taken to ensure that these are evenly distributed geographically. Appropriate supporting services shall be incorporated into the development of these tertiary facilities to provide effective referral services. Selected centres shall be encouraged to develop special expertise in the advanced modern technology thereby serving as a resource for evaluating and adapting these new developments in the context of local needs and opportunities.

## 2.7 National Health System Management

It is generally recognized that a more effective and efficient delivery of health care can be achieved in this country by a more efficient management of the health resources. Experience has shown repeatedly that many well-conceived health schemes fail to meet expectations because of failures in implementation. It is essential to establish permanent, and systematic managerial processes for health development at all levels of care. These shall include appropriate control to ensure the continuity of the managerial process from design to application.

## 2.8 The National Health Managerial Process

A national managerial process shall be established to include the following elements.

- (a) **The national health policy** - comprising the goals, priorities, main directions towards priority goals, that are suited to the social needs and economic conditions in the different States and form part of national, social and economic development policies;
- (b) **Programming** - the translation of these policies through various stages of planning at the local, state and national levels into strategies to achieve clearly stated objectives.
- (c) **Programmed budgeting** - the allocation of health resources by Governments of the Federation for the implementation of these strategies;
- (d) **Plan of Action** - describing strategies to be followed and the main lines of action to be taken in the health and other sectors to implement these strategies;
- (e) **Detailed programming** - the conversion of strategies and plans of action into detailed programmes that specify objectives and targets and the technology, manpower, infrastructure, financial resources, and time required for their implementation through the health system;

- (f) **Implementation** - the translation of detailed programmes into action so that they come into operation as integral parts of the health system; the day-to-day management of programmes and the services and institutions for delivering them, and the continuing follow-up of activities to ensure that they are proceeding as planned and scheduled;
  - (g) **Evaluation** - of health development strategies and operational programmes in order to progressively improve the effectiveness and efficiency of their implementation;
  - (h) **Reprogramming** - with a view to improving the master plan of action or some of its components, or preparing new ones as part of a continuous managerial process for national health development;
  - (i) **Relevant health information** - to support all these components at all stages to ensure regular and wide dissemination of needed information.
- (b) National health planning shall relate to the determination of broad policy and priorities, and their translation into forward plans for the utilization of resources. It shall not be concerned with detailed implementation of individual projects or developments, but only with determining their priority and timing and the resources to be allocated to them.
  - (c) The functions inherent in health planning shall be broken down between:-
    - i. the research, analytical and considerative processes which result in strategic policy choices and long-term objectives shall be a continuous process which cannot appropriately be fit into an annual cycle, though an annual summary of long term aims and objectives shall be produced as background to programming decisions;
    - ii. the programming and budgeting process will result in decisions to put into effect specific courses of action within a definite time scale as a means of achieving the long-term aims, and to allocate resources to them. This process, which gives rise to the preparation of financial estimates, budgets and operating targets, shall be subject to annual revision and updating in a formal planning cycle.

## 2.9 National Health Planning

- (a) National health planning shall form an integral part of the national health policy and any ensuing legislation. It will be an important administrative framework for assigning duties and responsibilities as well as determining the working relationships between different levels of health management;

## 2.10. Planning by the Federal Ministry of Health

- (a) The Federal Ministry of Health shall prepare and submit for annual review medium and long-term national health plans that detail the health problems and needs of the country. Each plan shall also detail the goals and objectives, priorities, implementation and evaluation procedures of solving the health problems and meeting the health needs of the country.
- (b) Each National Health Plan shall be made up of the State health plans submitted by every State Ministry of Health suitably revised to achieve the appropriate coordination or to deal more effectively with the national health needs.
- (c) The Federal Ministry of Health shall also provide guidelines on planning approaches, methodologies, policies, standards, and development of health resources.
- (d) The Federal Ministry of Health shall also provide guidelines for the organization and operation of state health planning and development units including:-
  - i. the structure of a state health planning and development unit;
  - ii. the conduct of the planning and development processes;

- iii. the performance of state health planning and development functions; and
- iii. the planning performance of Local Government health authorities.

## 2.11 Planning and Development Guidelines

- (a) The Federal Ministry of Health shall, by regulations, issue guidelines concerning national health policies, plans and programmes, and shall, as it deems appropriate, by regulation, revise such guidelines.
- (b) The Federal Ministry of Health shall include in the guidelines issued:
  - i. standards respecting the appropriate supply, distribution, and organization of health resources;
  - ii. statement of national health planning goals, objectives and targets developed after consideration of the priorities stated above. The goals, objectives and targets shall be expressed in quantitative terms to the maximum extent practicable.
- (c) In issuing guidelines, the Federal Ministry of Health shall consult with, and solicit for recommendations and comments, the State Ministries of Health, the State Ministries of Education and Local Government, professional

associations and special societies representing health organizations.

## 2.12 National Council on Health

- (a) The National Council on Health shall advise the Government of the Federation through the Minister on
- i. the development of national guidelines for Health;
  - ii. the development, implementation and administration of the National Health Policy;
  - iii. technical matters regarding the organization, delivery, and distribution of health services.; and
  - iv. any other matter assigned by the Minister;
- (b) The National Council shall determine the time frames, guidelines and the format for the preparation of National and State Health Plans.
- (c) The National Council shall be advised by the Technical Committee.
- (d) The National Council on Health shall normally meet at least once a year.

## 2.13 National Hospital Services Agency

- (a) There shall be established a National Hospital Services Agency to advise the Minister on

- i. the development of standardised national guidelines for the hospitals;
- ii. the administration of hospitals; and
- iii. technical matters regarding the organization and distribution of hospital services at tertiary and secondary levels as part of the health systems.

- (b) The Agency shall monitor and provide guidelines on health services at tertiary and secondary levels in both public and private sectors.
- (c) The Agency shall consider applications and make recommendations to the Minister for the issuance of Certificates of Need and Standard for and as appropriate for the establishment of tertiary health institutions.
- (d) The Agency shall establish an Office of Standards Compliance, which shall include a person who acts as ombudsman in respect of complaints as regards the activities of the Agency.
- (e) The Minister may make regulations to facilitate the activities of the Agency.
- (f) The composition of the Board of the Agency shall adequately represent all stakeholders in the health sector.

## 2.14 Managerial Process at State Level

- (a) To permit them to develop and implement their strategies, State Ministries of Health shall

- establish a permanent, systematic, managerial process for health development which shall lead to the definition of clearly stated objectives as part of the State strategy and, wherever possible, specific targets.
- facilitate the preferential allocation of health resources for the implementation of the State strategy, and shall indicate the main lines of action to be taken in the health and other sectors to implement it.
- specify the detailed measures required to build up or strengthen the health system based on primary health care for the delivery of state programmes.

The managerial process shall also specify the action to be taken so that detailed programmes become operational as integral parts of the health system, as well as the day-to-day management of programmes and the services and institutions delivering them. Finally, it shall specify the process of evaluation to be applied with a view to improving effectiveness and increasing efficiency, leading to modification or updating of the State strategy as necessary. Health manpower planning and management shall be an inseparable feature of the process.

For all the above, the support of relevant and sensitive information will be organized as an integral part of the health system.

- (b) State Ministries of Health shall establish permanent mechanisms to develop and apply their managerial processes and to provide adequate training to all those who need it. These shall include mechanisms in ministries themselves, as well as all networks of individuals and institutions, to participate in the managerial research, development and training efforts required for health development.
- (c) State Ministries of Health shall establish machinery for implementation.
- (d) State Ministries of Health shall coordinate Disease Control Programmes

### **2.15 State Hospital Management Board**

- A Board known as the State Hospital Management Board shall be established for each State and shall be responsible for the administration, management of the hospitals that come under their jurisdiction and ensure that the standard national guidelines for hospitals are adhered to.
- A State Hospital Management Board shall consist of nominees to represent all the stakeholders in the health sector (doctors, pharmacists, nurses, medical laboratory scientists, patients etc.) to be appointed by the Governor.
- The Commissioner shall recommend the process of selection, appointment and termination of

office of the members of the Board to the Governor.

- A State Hospital Management Board shall function under the general supervision of a Commissioner.

### **2.16 Federal Capital Territory Hospital Management Board**

- A Board known as the Federal Capital Territory Hospital Management Board shall be for the Federal Capital Territory.
- The Federal Capital Territory Hospital Management Board shall be appointed by the Minister of the Federal Capital Territory.
- The Executive Secretary of Health and Human Services shall recommend the process of selection, appointment and termination of office of the members of the Board to the Minister of the Federal Capital Territory.
- The Federal Capital Territory Hospital Management Board shall function under the general supervision of the Director of Health Services.

### **2.17 State Health Planning**

- Each Ministry of Health shall establish an appropriate mechanism for the planning and implementation of its development functions;
- The State Ministry of Health shall submit an annual health plan that shall outline the health problems, needs, goals

and objectives, implementation and evaluation procedures for the State. It shall also submit medium and long-term plans to the Federal Ministry of Health after the approval of the State Executive Council.

- Each State Ministry of Health shall perform within the State the following functions:-
  - i. conduct health planning activities and help in implementing and co-ordinating the various components of the State Health Plan;
  - ii. prepare, review and revise as necessary (but at least annually) a preliminary State Health Plan which shall include the Local Government Health Authority plans;
  - iii. assist the State Hospital Management Board in the review of the State health facilities plan and in the performance of its functions generally;
  - iv. review on a periodic basis (but not less often than every three years) all institutional health services being offered by the state.

### **2.18 Technical Assistance for State Health Services**

The Federal Ministry of Health and where applicable, the National Planning Commission, shall provide the following technical assistance to the State Ministry of Health:-

- i. assistance in developing their health plans and approaches to the planning of various types of health services;
- ii. technical materials, including methodologies, policies and standards appropriate for use in health planning;
- iii. other technical assistance as may be necessary in order that such institutions may properly perform their functions.

### 2.19 Local Government Health Services

In order to involve every Local Government in the development and provision of health services, there shall be established:

- (a) a body to be known as the National Primary Health Care Development Agency;
- (b) State Primary Health Care Development Boards in every State and the Federal Capital Territory; and
- (c) Local Government Health Authorities in every Local Government Area and Federal Capital Territory Area Council.

### 2.20 National Primary Health Care Development Agency

There shall be established for the federation the National Primary Health Care Development Agency to provide strategic support for the development and

delivery of Primary Health Care and enforce compliance with guidelines.

The National Primary Health Care Development Agency shall include:-

- (a) a part time Chairman;
- (b) a representative of Federal Ministry of Health;
- (c) six members representing the State Ministries of Health and the Federal Capital Territory Ministry of Health, one per zone on rotation;
- (d) six members representing the Local Government Health departments, one per zone on rotation;
- (e) one representative of Federal Ministry of Finance;
- (f) one representative of National Planning Commission;
- (g) one representative of the registered Health Professional Associations and
- (h) The Executive Director as an ex-officio member of the Board.

### 2.21 State Primary Health Care Management Boards (SPHCMB)

- (a) There shall be established for each State a State Primary Health Care Board and for the Federal Capital Territory, a Federal Capital Territory Primary Health Care Board. The NPHCDA will

provide technical support and supervision through the SPHCMB in the delivery of Primary Health Care services. The Board shall be responsible for the coordination of planning, budgeting, provision and monitoring of all primary healthcare services that affect residents of the state and other matters incidental thereto.

- (b) The State Primary Health Care Board shall include-
- (i) a full time chairman with experience in health management who shall be the Chief Executive Officer and Accounting Officer of the Board;
  - (ii) three other full time members who shall have qualification and experience in human resources, financial management and administration;
  - (iii) one ex-officio member to represent the Ministry of Health in the State/Federal capital Territory Department of Health;
  - (iv) three ex-officio members to represent the Local Governments/Area Council on biennial rotational basis;
  - (v) one representative each of-
    - private health care provider in the state;
    - state hospital management board.
- (c) The State Primary Health Care Board members shall be appointed by the Governor/Minister of FCT on the recommendation of the Commissioner of Health/Executive Secretary of Health and Human Services'

## 2.22 Local Government Health Authorities

- (a) There shall be established for each Local Government Area of a State and Area Councils of the Federal Capital Territory a Local Government Health Authority that shall be subject to the supervision of the State Primary Health Care Board.
- (b) The membership of the authority shall be as determined by the Chairman of the Local Government on the recommendation of the Supervisory Councillor for Health in accordance with National Guidelines.
- (c) There is hereby established the Area Council Health Authority. The Area Council Health Authority shall include:-
  - (i) A part time Chairman who shall be a qualified and experienced public health manager;
  - (ii) one representative of the private healthcare providers in the Area Council;
  - (iii) one representative of women in the Area Council;
  - (iv) one female representative of the Area Council Social Welfare Department;
  - (v) one representative of the Traditional Rulers' Council;
  - (vi) two representatives of Religious Organizations; and
  - (vii) the Head of the Department of Health of the Area Council who shall be the Secretary of the Authority.

- (d) The members of the Area Council Health Authority shall be appointed by the Chairman of the Area Council on the recommendation of the Head of the Department of Health of the Area Council.

### **2.23 Preparation of Local Government Primary Health Care plans**

- (a) The Federal Ministry of Health, in collaboration with NPHCDA, shall within the national budget cycle work with the State Primary Health Care Boards and Local Government Health Authorities to develop and implement a health plan in accordance with National Health Guidelines issued by it.
- (b) A Local Government Health Authority shall, within the national budget cycle, develop and present to the State Primary Health Care Board, a Local Government health plan, drawn up in accordance with national guidelines issued by the Federal Ministry of Health, with due regard to national and State health policies.
- (c) The State Primary Health Care Board in collaboration with NPHCDA shall ensure that each Local Government Health Authority develops and implements a health human resource plan in accordance with national guidelines issued by the Federal Ministry of Health.

### **2.24 Establishment of Village Development Committees**

- (a) There shall be established, in every village, a Village Development Committee whose composition and responsibilities are as determined by the PHC guidelines.
- (d) The NPHCDA shall issue operational guidelines for the Village (Community) Development Committee.

### **2.25 Establishment of Ward Development Committees**

- (a) There shall be established for each ward in every Local Government or Area Council, a Ward Development Committee which shall be responsible for the coordination of planning, budgeting, provision and monitoring of all primary healthcare services that affect residents of the ward and other matters incidental hereto.
- (b) The membership of the Committee shall be determined by members of the ward according to PHC guidelines on formation of Ward Development Committee.

### 3. NATIONAL HEALTH INFORMATION SYSTEM POLICY

a) **PHILOSOPHY:** The availability of accurate, timely, reliable and relevant health information is the most fundamental step toward informed public health action. Therefore, for effective management of health and health resources, governments at all levels have overriding interest in supporting and ensuring the availability of health data and information as a public good for public, private and NGOs' utilization. The role of government must extend to ensuring standardization and financing of health data infrastructure, especially with respect to establishing and strengthening relevant organizational structures for Health Management Information System (HMIS) activities. It should also extend to procurement and installation of appropriate information technology, staff training and collection, storage, analysis, dissemination and use of health information, as well as in financing essential systems and biological research.

The interface between the government, the private sector and communities is desirable for a more comprehensive health profile of population. However, as a public good, the onus is largely on the government to collect, analyze and make available, information on health status, health behavioural risk practices, prevention and containment of epidemic outbreaks and support for essential national health research, especially at the local level. Government should facilitate standardization, ensure cooperation and coordination among agencies (public and private) and make information available to the communities and

individuals for choices in matters relating to their health.

b) **Background:**

Planning, monitoring and evaluation of health services are hampered by the dearth of reliable data. The basic demographic data about the size, structure and distribution of the population are unreliable on a national scale. The system for the registration of births and deaths nationally is defective and hence it is not possible to calculate the simplest indicators like the crude birth rate, crude death rate and infant mortality rate. The state of health of the population is assessed on the basis of scanty information, which has been collected in a few limited surveys and research studies. The health services at the national, state and local government levels cannot be managed efficiently on the basis of the available data.

c) **GOAL:** The establishment of an effective National Health Management Information System (NHMIS) by all the governments of the Federation to be used as a management tool for informed decision-making at all levels.

d) **Objectives:**

The NHMIS consists of the provision of appropriate infrastructure, the establishment of mechanisms and procedures for collecting and analyzing health data to provide needed information:-

- to assess the state of the health of the population;
- to identify major health problems;
- to set priorities at the local, state and national levels;

- to monitor the progress towards stated goals and targets of the health services;
- to provide indicators for evaluating the performance of the health services and their impacts on the health status of the population;
- to provide information to those who need to take action, those who supplied the data and the general public.

#### e) NHMIS Development

Development of the information system shall proceed as follows:

- The information system shall be developed in a phased manner starting with the simplest data which can be collected at the peripheral institutions. Efforts shall be made to implement based systems for the collection of vital health statistics: births and deaths. Such data shall be used for planning and monitoring of health services at the local level;
- The state ministry of health shall promote and support the collection of data by the local government health authorities to improve the quality and quantity of the information. The methods of collection and recording shall be standardized as far as possible to facilitate their collation and comparison;
- As and when feasible, LGA and state health authorities shall use simple electronic data processing equipment for storage, retrieval and analysis of the data;

- At the federal level, in collaboration with the Federal Office of Statistics, the Department of Health Planning & Research (DHPR) of the Ministry of Health shall be responsible for obtaining, collating, analyzing and interpreting health and related data on a national basis. The DHPR shall support the state health authorities in the development of their information systems.

#### f) National Health Indicators

For comprehensive monitoring and evaluation of health care, minimum categories of indicators shall be as follows:

- Health Policy Indicators;
- Health Status and Performance Indicators (Ill-health prevention indicators, health restoration and rehabilitation indicators, and health protection indicators);
- Socio-economic indicators related to health and living standard;
- Indicators on Provision and utilization of health care services.

The indicators to be selected shall be based on the available resources, relevance to the health policy and availability of the data requirement.

The four main indicators shall be as defined below:-

#### i) Health Policy Indicators: - shall include:

- political commitment to "Health for All" especially enactment of any necessary legislation to effect the commitment;
- financial resources allocation in terms of the proportion of the Gross National Product spent on health, the proportion of the total governments' expenditure going to health and specifically to primary health care and per capita government expenditure on health described by states and local government areas;
- the distribution of health resources, financial, manpower and physical facilities to reflect the degree of equity by geography and by the urban/rural ratios;
- the degree of community (village) involvement as indicated by the establishment of Community (village) development committees, community participation in health and health-related programmes and contribution towards health care and organizational framework and managerial process.

- life expectancy at birth and at 5 years of age and
- fertility rate.

Social and Economic Indicators shall include:-

- rate of population increase;
- gross national or domestic product;
- income distribution;
- work conditions;
- adult literacy rate by sex;
- food availability; housing;
- basic sanitation and school enrollment by sex.

iv) Provision and Utilization of Health Care Indicators shall include coverage by primary health care referral support: -

- information and education concerning proportion of population with access to mass media outlets and measurement of adult literacy activities to the community;
- food and nutrition;
- water supply and sanitation as above;
- family health indicators including proportion of children receiving child health services; proportion of pregnant women receiving antenatal, essential obstetrics and post- natal care and proportion of eligible women receiving family planning advice;
- immunization indicators shall include the percentage of children at risk who are fully immunized against the major childhood diseases; the incidence of the six diseases in children under 5 years of age and mortality rate due to the six diseases in children under 5 years of age;

ii) Health Status and Performance Indicators:- shall include at the minimum:

- nutritional status as indicated by the birth weight of babies, weight and height measurement of infants and children in relation to age;
- infant mortality rate; child (1 - 4 years) mortality rate;
- maternal mortality rate;
- crude death rate;
- crude birth rate;

- prevention and control of epidemic and endemic diseases. Indicators shall specify disease specific incidence and prevalence rate; mortality for selected number of diseases; proportion of mortality rates from communicable diseases; proportion of leprosy and tuberculosis detected as well as under regular treatment and lastly vector indices;
- treatment of common diseases and injuries indicators shall include proportion of cases of diarrhea in children under 5 years, proportion of fevers treated with chloroquine, proportion of respiratory infections treated with common antibiotics, proportion of malnutrition treated with supplementary feeds and proportion of injuries or accidents treated by first-aid or simple treatment;
- provision of essential drugs indicators shall specify provision of essential. drugs, vaccines and supplies, standard drug list and availability of such items;
- coverage by referral system indicators shall state the proportion of the population in a given area with access to the services within five kilometers or one hour travel time, the proportion of referred cases who made use of the services and the availability of referral services, e.g., pediatric, obstetric, surgical, medical, etc.
- promotion of mental health indicators;
- promotion of oral health indicators;
- promotion of school health services.

Principal Sources of Health Data and Information shall include the following:

- Population and household censuses as prepared and projected by the National Population Commission and Federal Office of Statistics; household censuses will produce data on health-related services such as housing, water supply, toilet facilities and overcrowding;
- Vital Events Register - legal registration, statistical recording and reporting of vital events such as births, deaths, marriages and divorces. These registrations of vital events are available at appropriate state authorities;
- Routine health services data dealing with morbidity and mortality data; immunization, disease treatment, out-patient attendance, admissions, etc. These records should be obtained from the records of health services in health institutions;
- Epidemiological surveillance data to cover immunization records, notifiable diseases, and indication of disease incidence and prevalence;
- Disease registers for specific morbidity and mortality shall be kept such as for cancer, sickle cell disease, handicapped persons, etc.;
- Budgetary allocation data to be obtained from the federal and state ministries of finance and planning; as well as the local government authorities;
- Community surveys shall be undertaken in collaboration with the NPHCDA, National Population Commission, Federal Office of Statistics, university departments and non-governmental organizations and
- Other health data sources including libraries, archives, registers of health institutions and health personnel.

#### h) Responsibilities At Each Level

Each level of government shall have assigned roles and responsibilities as described below:-

i) Local Level:- The local government health authorities shall be responsible for

- the collection, analysis, utilization and dissemination of all data in its area of jurisdiction
- ensuring timely forwarding/sharing of data to relevant departments, agencies and programmes operating at the LGA level
- ensuring forwarding of aggregated data, prescribed forms, to the state level;
- training and supervision of health facilities and
- ensuring that the LGA-GIS serves as the management unit for HMIS at the LGA level;
- A regular feedback mechanism should be in place to facilities/States.

ii). State Level: - State ministries of health shall be responsible for

- collecting and aggregating relevant information from local government areas;

- ensuring timely forwarding/sharing of data to relevant departments, agencies and programmes operating at the state level;
- training and supervision of state health facilities and LGA officials;
- ensuring the preparation of state health bulletin for decision making, dissemination and feedback and in the

iii) National Level:- The National Health Management Information System (NHMIS) Unit of the Federal Ministry of Health shall be responsible for:-

- the establishment and sustenance of an effective national health management information system;
- the central coordination of the health information sub-systems;
- collecting, processing and dissemination of relevant and necessary information required both for national health planning and for monitoring the utilization of resources in accordance with national priorities, objectives and health indicators,
- ensuring timely forwarding/sharing of data to relevant agencies, departments and programmes operating at the Federal level;
- providing technical and managerial support to facilitate health management information systems at all levels;
- A regular feedback mechanism should be in place to facilities/States.

## HISTORICAL DEVELOPMENT OF NHMIS

All policy and strategy documents which attempt to define the health problems, health priorities and the distribution and coverage of health resources in Nigeria, emphatically highlight the lack of meaningful, accurate and timely data. Denominators (the demographic base around which services are planned and indicators are calculated), are difficult to ascertain at the operational level. Disease surveillance systems are not well defined and are not recognized by health workers at all levels from the policy maker and health manager to the health worker providing individual care or population care. Whatever information there is, is from a few isolated surveys or research studies. Thus, it has been recognized that those who are responsible for the health of Nigerians at any level of government have to sooner or later attempt to develop the intelligence base for monitoring the health status of the population they serve.

Since 1986, primary health care has been adopted by the government of Nigeria as the strategy for achieving health for all Nigerians by the year 2000. Since the inception of PHC, the Federal Ministry of Health has been committed to a simple and objective monitoring and evaluation of the programme. This has resulted in various committees being set up to design methods and formats for monitoring and evaluation -as well as to develop the training manuals and instruction booklets.

The epidemic outbreak of yellow fever and cerebro-spinal meningitis between 1986-1987 revealed that the disease surveillance and notification system was poor and undermined the national capacity to detect and control epidemics. This resulted in the setting up of a national task force on epidemic control, which reviewed the existing surveillance systems and

established the new Disease Surveillance and Notification (DSN) system.

Since 1980, the Federal Ministry of Health in partnership with international organizations established various disease control programmes; some in the context of PHC such as NPI (former EPI), CDD/ARI, Malaria and Vector Control Programme, Guinea Worm Eradication Programme, Onchocerciasis Control Programme, Leprosy and Tuberculosis Control Programme STD/HIV/AIDS control etc. Administratively, these developments have compounded the problem of coordination within the existing systems.

In 1988, Government formulated a national policy on population for development, unity, progress and self-reliance. Some of the strategies were population data collection, training and research. Emphasis was given to vital registration of births and deaths, conducting a census and demographic surveys, data on family planning activities and coverage. These efforts were strongly supported by UNFPA and USAID (the latter through the Family Health Services -- FHS project).

The Federal Ministry of Health has had a medical statistics system in place since the 1960s. Health manpower, hospital activities, morbidity and mortality data, records of births and deaths in hospitals used to be published on a quarterly or annual basis.

The reorganization of the civil service in 1988 by the Federal government to make all ministries efficient, productive and effective created three mandatory departments in each ministry, one of which is the Department of Planning, Research and Statistics. Also in 1988, the government adopted its first comprehensive National Health Policy, which calls for,

among other things, the establishment of a national health information system by all the governments of the Federation to be used as a management tool for the health sector. Thus, the medical statistics and health information system activities have evolved as part of the Department of Planning, Research and Statistics in the Federal Ministry of Health. In this department, operational research and planning have had prominence, but support for medical statistics and information systems has been limited.

As a result of neglect and under funding over the years, the National Health Management Information System suffered a lot of setbacks and could not meet the objectives for which it was set up. This necessitated the need for a complete overhaul of the system in order for it to make it responsive to the initiatives for the current Health Sector Reform and in compliance with the resolution of the National Council on Health to commence a review process that would lead to a strengthened National Health Management Information System.

With support from the UK Department for International Development (DFID) through the Partnership for Transforming Health Systems (PATHS) programme, a multidisciplinary pre-consultation team was set up in concert with the Department of Health Planning and Research of the Federal Ministry of Health to conduct widespread consultations with all stakeholders in healthcare delivery in the country in order to come up with a functional and more responsive NHMIS for the nation.

The pre-consultation process culminated in the convening of an Extended Health Data Consultative Committee (HDCC)

meeting in July 2004 where the findings and recommendations of the team were considered among other things. At the meeting, a consensus was reached on the need to commence the restructuring of the NHMIS so that it might provide an efficient and effective basis for planning, management and evidence-based decision-making.

Between October and December 2004, several technical committee meetings were held to review and put modalities in place for the implementation of consensus reached at the HDCC meeting. Highlights of the process include the following.

- Review of the existing policy documents on NHMIS
- Agree on roles and functions of the newly established Technical Working Group (TWG), which is a consortium of qualified professionals that would provide technical assistance and inputs to the NHMIS process on a continuous basis.
- Assessment and review of Health Indicators and health data systems
- Revision of routine NHMIS forms, registers and manuals.
- Printing of pilot forms and manuals and the adoption of final copy for production and usage.
- Donor/Partners resource mobilization.
- Advocacy and sensitization on HMIS at all levels of health care delivery.

- Distribution of NHMIS materials to all health data generators across the nation, states, LGAs, private and public health facilities.
- Cascaded trainings of all stakeholders on NHMIS.
- Budgetary line and release of funds by all tiers of government and other stakeholders for NHMIS.

a) A case of Parallel Systems:

i) **PHC Information System**

The overall objective of the PHC information system (which is a sub-system of the NHMIS) was to develop a dynamic and responsive system that would provide information for strategic planning, management and operational functions of PHC activities at all levels.

The specific objectives are:

- to develop an effective and efficient PHC information system that would generate, transmit, store, retrieve and process PHC data, and provide the right information services to the appropriate levels of PHC management in the desired form and at the right time;
- to identify and adopt appropriate technological data processing support / hardware and software consideration that would be needed for the PHC information system to function satisfactorily;
- to integrate different PHC-related information to provide multivariable and multidimensional information services;

- to develop a mechanism and procedures to make the information system dynamic and responsive to changing needs;
- to establish a set of criteria and standards for information system in order to enhance quality and the effectiveness of PHC monitoring and evaluation activities;

The emphasis on development of the information system is to mobilize and empower local health authority and the community to undertake health care needs assessment, priority setting and implement action programmes.

The PHC information system process consists of: baseline surveys, household surveys, situation analysis and health profiles: health maps; house numbering; home base records (child health card, personal treatment card, clinic master card); the wall chart; Health Facility/District referral forms (VHW Forms Book 1-HF, Tracer Disease Cases I HF- 1 and HF-2, Birth and Deaths I HF-3 and I HF- 4, Community Health Activities I HF-5 and I HF-6, Antenatal and Family Planning I HF-7 and I HF-8, and General Health Facility Booklet). These forms are no more in use.

The PHC system data flow and returns rate has been low. It was 22% in 1994 and 18% in 1995. A return rate below 2% has been recorded for some states. In addition there is a lot of duplication in the system. For example, PHC Form I HF-3 and I HF-4 collect the same information, which the parallel vital registration system is collecting at the same level. Similarly, most of the information collected via the Tracer Disease Form I HF- 1 and I HF-2 are also collected in the DSN system. More importantly, the reporting requirements at this level are

overloaded and not adequately matched with resource inputs: human, technical, material and financial.

Federal Government, through NPHCDA constructed 200 new model Health Centres that are evenly distributed throughout the six geographical zones and 36 states of the federation. The health staffs of the centers had been trained on PHCMIS and were given PHCMIS forms required for data collection.

The 2003 annual report and statistics provided by 4 zones, 12 states and 21 health facilities indicated underutilization of PHC centers, with North Central (8), North West (5), South East (7) and South South (1). Utilization of facilities was highest in the North West zone with 99 cases per month per health center, followed by North Central zone (23) and South East (20).

Newly Registered Pregnant Women was high in 16 reporting centers. Deliveries were low with an average of 4 per month per zone, showing that pregnant women were delivered outside the health centres, which provided them antenatal care. There were no reported case of maternal or neonatal deaths. Post natal visit were poor. Data on birth weight shows that 78.6% of babies born had weight of 2.5kg and above.

Family Planning Services were underutilized, making Oral Pill and injectable more popular choices. Statistics further show that only 29.7% of children completed routine immunization against the six childhood preventable diseases with the highest number recorded in the North Central and the lowest in North West zone.

Malaria and diarrhoea were the most noticeable tracer diseases in all the health centers. The monthly record of tracer disease and outpatient attendance are to monitor diarrhoea, measles, pneumonia, malaria, tetanus, malnutrition accidents and other unspecified health problems.

It is instructive to note that the above data came from 18 out of 8,797 (0.21%) health centres in the country. Yet this information is necessary for planning and monitoring of health services in PHC Centres.

Throughout the year 2004, the six zonal offices regularly sent health service data to the Department of PRS of the NPHCDA. In all, data was received from 110 (55%) out of 200 newly completed Model PHC Centres, in 31 States. The pattern of distribution is as follows: NC Zone, 12 health centers sent in health service data out of 33 health (36.4%); NE 19 out of 32 (59.4%); NW 27 out of 38 (71.1%); SE 18 out of 31 (58.1%); SS 18 out of 33 (54.5%) and SW 16 out of 33 (48.5%). Thirty one (31) State sent reports.

### **Tracer Diseases**

121,584 cases of tracer diseases were reported in 2004. These diseases were namely, Malaria, Diarrhoea, Pneumonia, Malnutrition, Measles, Accidents and diseases classified as "Others".

Malaria accounted for the largest proportion of tracer diseases (37.2%) followed by diarrhoea (16.9%), Pneumonia (7.3%) Measles (3%) and Malnutrition (2.8%). Malaria remains the most common cause of out patient clinic attendance for infants (37.8%), under 5s (41.65%) and 5-14 years (37.2%).

## Ante-Natal Care and Pregnancy Outcome

NE recorded highest number of ANC clients, while SS had the lowest. Deliveries in the health center were lower in comparison with registered ANC cases. This means that not all those who registered in the health centers for ANC delivered in the health facilities. A larger percentage of deliveries must have taken place at home, with TBAs, and private clinics.

### ii) Disease Surveillance and Notification System (DSN)

During the 1986/87 outbreak of yellow fever which affected ten states of the Federation, it was identified that poor disease surveillance and notification was a major national problem which is still an important constraint to effective disease control in Nigeria. In response, a national task force on epidemic disease control was set up. One of the issues it addressed was the weaknesses in the national diseases surveillance and notification system. The task force conducted a full review of the system and recommended the development of a new disease surveillance and notification system.

The new uniform system of disease notification, throughout the country comprising of only two methods of notifications, has since been put in place under the Epidemiology Division of the Department of Primary Health Care and Disease Control (now Department of Public Health). However, to a considerable extent, the same information collected through the DSN is also collected through other systems, such as the PHC Tracer Diseases forms and the data systems of the various vertical health programmes.

### iii) Immediate Notification (DSN-001):

This system, which is one of the two methods of disease notification, involves immediate reporting of any suspected cases of 9 notifiable diseases selected because of their high case fatality and their potential for breaking out as epidemics. An epidemic is defined as the occurrence of a number of cases of a disease or condition that is unusually large or unexpected for the given place and/or time. The form DSN-001 is sent by the fastest means available to the epidemic control unit of the Ministry. Weekly follow-up reports on the progress of the epidemic are undertaken until there has been three consecutive weeks with "nil " cases reported.

### iv) Routine (monthly) notification (DSN-002) of 40 diseases:

This system reports on 40 diseases, including the 9 diseases of the Immediate Notification system. The rationale for the choice of these diseases for routine notification is because they can cause an immediate threat to the health of the population or because they are being addressed by national control programmes and their incidence needs to be monitored to evaluate the impact of the control programme. The form DSN-002 should leave each health institution by the end of the first week of the month after the month being reported on. The LGAs are responsible for collecting the completed form each month and are supposed to collate them for their area by the end of 4th week of the next month. Epidemiological units in the states prepare a consolidated report from all their LGAs. One copy is retained in the files and one copy is sent to the Federal Epidemiology Division.

#### v) **Sentinel Surveillance System:**

In 1984, FMOH with WHO and LUNICEF developed a sentinel surveillance system for EPI at 43 sites. However, by the end of 1989 only 19 LGA capitals out of the 49 proposed sites were functioning. Efforts to strengthen the system were again started in 1989 with the intention to operate in ISO sites. The sentinel system was envisaged as complementary to the routine disease (DSN) reporting system, which provided information on forty diseases of public health importance. The DSN was observed to have problems with under-reporting and incorrect diagnoses. Therefore, the sentinel surveillance was proposed to monitor notifiable diseases by involving and using selected facilities whose reports were more complete, more accurate and more timely than those of routine diseases reporting system. Apart from the obvious fact that the system was duplicative of the DSN system (because it collects the same data as DSN), it did not take-off as planned because of its multiple flow-paths and inadequate management and responsibility arrangement.

#### vi) **Vital Statistics:**

The registration of births and deaths nationwide was made compulsory by the promulgation of Decree 39 of 1979. In order to establish a unified system of registration for the country, the National Population Commission (NPC), with assistance from UNFPA and other bilateral cooperation, embarked upon a phased implementation of the Vital Registration Project. However, a parallel vital registration system is operated by the ministries of health, through the PHC information system. The returns from the system were

initially quarterly returns but in reality they have become annual returns, if at all.

#### vii) **Returns From Hospitals:**

All public sector hospitals were required to collect and submit monthly returns on hospital medical statistics using FMOH CMF-12 Form which is based on the ICD coding.

In 1990, under the USAID-CCCD project, certain hospitals were identified to pilot the development of in-patient information system. These were: Jos University Teaching Hospital; Plateau State Hospitals; Ahmadu Bello University Teaching Hospitals; Kaduna State Hospitals; Usman Dan Fodio Teaching Hospital, Sokoto; University College Hospital, Ibadan; University of Nigeria Teaching Hospital, Enugu; Ogun State Teaching Hospital; Massey Children's Hospital Lagos and Mainland Hospital, Lagos. There was an initial seminar organized for these hospitals and an admission form was designed to include all basic information on the patient which is immediately supplied to the medical records office. This allowed for preliminary timely analysis of the information on the patient and allowed follow up to ensure completeness of the report on discharge.

The medical records departments were provided with a computer and data entry and analysis software MEDPRO. The system is functioning only in very few institutions and suffered setbacks as a result of the scale-down of USAID activities in Nigeria.

### viii) **National Programme on Immunization (NPI):**

The NPI (formerly EPI) system, was one of the earliest information systems based on standard EPI monthly activity reporting forms. These forms have been introduced in the PHC-information system with minor modifications. Typically, staff at the health facilities where vaccinations services are provided complete two monthly reports, using two slightly different forms that contain the same data. One of the forms follows the PHC(M&E) pathway, while the other follows the EPI reporting flow-path. The data are separately entered and analyzed in each of the reporting system.

The EPI reporting system was the first area where computers and appropriate software were introduced into the information system. With the assistance of UNICEF, as early as 1988, the hardware and WHO, EPI software were introduced into the EPI system within UNICEF, federal and zonal offices of the FMOH. Annual graphic analysis and reports were produced by zonal, state and LGA level. Unfortunately, this development was not actively followed up to introduce the hardware and software at the state level.

### ix) **National Contraceptive Logistic Management System (CLMS):**

The objectives of this system are:

- to show how well the clinics are recruiting new family planning users;
- to indicate the number of different methods provided and the method mix for new acceptors;
- to source for referral for new acceptors which is important for evaluating IEC activities;

- to establish database on personnel, facilities and equipment;
- to aid decision making, forecasting of commodities' need and constraints in services delivery and methods for improvement.

The Family Planning (FP) system is a classic example of the pitfalls of a donor-driven system. While the system was functioning, the data followed two pathways: one followed the USAID-FHS information system, while a sub-set followed the PHC (M&E) reporting system. With the collapse of the USAID-FHS system, the entire public sector was jeopardized. The department of Community Development and Population Activities, the MCH Unit of PHC&DC in concert with UNFPA have started to revive the FP MIS.

In addition to the USAID-FHS and the PHC (M&E) FP data flow, there is also the parallel and extensive (private sector) FP record system organized and managed by the Planned Parenthood Federation of Nigeria (PPFN). There is no where in the system where the two systems converge to give a profile of the Family Planning situation in Nigeria. UNFPA is assisting with strengthening the MCH/FP MIS but this is being done outside the mainstream of an integrated and comprehensive NHMIS process.

In 1995 the Government of the Federal Republic of Nigeria adopted the National Contraceptive Logistic Management System (CLMS). The System was designed to improve access of Nigerians to quality contraceptive commodities. The CLMS system was also meant to overcome problems of irregular distribution of contraceptives to Service Delivery Points (SDPs), multiplication of Logistic Management Information System



#### x) **HIV and AIDS Surveillance:**

The system consists of HIV/AIDS Surveillance (passive), HIV Infection Surveillance (active), HIV screening (passive), HIV Sentinel Surveillance (active). The forms in use are:-

- NACP/001 Form: HIV testing request
- NACP/002 Form: HIV infection report
- NACP/003 Form: AIDS cases report
- NACP/004 Form: Monthly screening report

AIDS was originally one of the diseases classified for immediate notification, but since September 1992 it has been put under the monthly routine notification system on DSN-002. Thus, the existing AIDS programme data system overlaps with the AIDS reporting within the DSN.

However HIV & AIDS Surveillance has been strengthened through a National Policy adopted in 1997, which was reviewed in 2003.

#### xi) **Nigeria Guinea Worm Eradication Programme**

Guinea worm surveillance is conducted by an active national case search based on standardized questionnaires. The data is collected annually. Four case searches have been conducted since the inception of the programme in 1987. Because the information on guinea worm is already reported through the DSN, the existence of a separate system for guinea worm reporting is a duplication.

#### xii) **National Onchocerciasis Control Programme**

The onchocerciasis control programme is developing the use of a rapid assessment method for community diagnosis of onchocerciasis in order to identify prevalence areas of leopard skin or nodules. This is to be followed up with mectizan treatment. The programme is also considering setting up its own parallel information system, with support from the International Eye Foundation, even though routine data requirements can be obtained from the DSN.

#### xiii) **Essential Drug Programme (EDP):**

The MIS system for the EDP is not functioning at the moment. The Federal Ministry of Health, with assistance from the World Bank, engaged a consulting firm, Management Sciences for Health (MSH), Boston, USA, to develop the MIS for the National Essential Drug Programme. A draft report prepared in 1993 indicates that the system developed by MSH consisted of a set of manual procedures to collect data on selected indicators and to improve the flow of management information through the EDP. Computerization of the system was not covered under the submitted draft. The entire EDP MIS initiative has not progressed much since the draft report was submitted in 1993.

Parallel to the fledgling EDP MIS is a Drug Revolving Fund system of the Bamako Initiative (BI) which operates primarily at the PHC level. There is scope to streamline and integrate the DRF Under BI with EDP and HSF-EDP components.

#### **xiv Integrated Disease Surveillance and Response (IDSR)**

The IDSR strategy was adopted in September 1998 at the 48<sup>th</sup> World Health Organization (WHO) African Regional Committee meeting in Harare, Zimbabwe to strengthen disease surveillance system in all member states. The adoption of this strategy commenced in Nigeria in January 2001 with the inauguration of a coordinating committee to steer the introductory phase. Other activities that were carried out toward the implementation of IDSR include assessment of the old Disease Surveillance and Notification (DSN) system to identify its strengths and weaknesses, and sensitization of National Programme Managers on IDSR in June 2001. The national policy on IDSR was approved in 2006 for use at all levels of health service delivery in the country.

IDSR focuses on 22 priority diseases, sub-divided into three categories: epidemic-prone diseases, diseases targeted for elimination and eradication and other diseases of public health importance. The forms in use under this strategy are:

- Immediate Notification Form (IDSR 001A, 001B, 001C) for epidemic-prone diseases
- Weekly Reporting Form (IDSR 002) for epidemic-prone diseases
- Routine Monthly Notification Form (IDSR 003) for the 22 priority diseases.

#### b) Survey Systems:

A plethora of survey schemes and instruments has been used and continues to be used to gather various health and

demographic data. The most notable ones are: National EPI Coverage Surveys; District Household Surveys for monitoring HFA 2000; NBS National Integrated Household Surveys; Demographic and Household Surveys; Community Household Surveys for Knowledge, Attitudes, Beliefs and Practices, National HIV Sero-prevalence Sentinel Surveillance; Health Facility Assessment Surveys; WHO-Nigeria Composite Indicators Surveys (A Primary Health Care Decision Support System). These surveys have been promoted largely to meet the programmatic data requirements of international health organizations and not necessarily to strengthen and support a specific aspect of the national health information system. The numbers are far too many and lack coordination.

Number of surveys has been used to capture various health and demographic data. The most notable ones are:

- the NBS NISH (National Integrated Survey of Households)
- WHO – Nigeria Composite Indicator Survey;
- The NDHS 1995
- The NDHS 2003
- The national Survey on RH facilities and services 2003 CDPA/FMOH

#### c) Programme Reviews and Operations/ Health System Research:

Programme reviews and operations research are essential for generating data for decision making especially for health intervention programmes. Early in 1992, an essential national health research framework was prepared and adopted. The framework did not lead to any systematic programme of

health intervention programme reviews nor a sustainable health system research.

d) Health Care Level-Specific Forms:

The existing forms according to the level of use can be grouped as follows:-

i) At the Federal/Tertiary level:

- Health Establishment Returns (FMH/STATS/HE and FMH/STATS/LGA/T) for listing registered establishments in the country);
- Health Manpower Returns (FMH/STATS/HM/A) for health manpower situation);
- Health Manpower Development Returns- (FMH/STATS/HMD for annual enrollment by category, FMH/STATS/HMD-2 for health manpower development, FMH/STATS/HMD-3 for establishment for training medical and paramedical personnel);
- Hospital Statistics (FMH/STATS/FMOH for monthly summary of in-patient movement, CMF-12 for combined medical forms-hospital morbidity and mortality);
- Vital Statistics (MH/STATS/V2/3, quarterly vital statistics returns);
- Disease Surveillance and Notification System (DSN-001 for Immediate Notification and DSN-002 for routine (monthly) disease notification, IDSR form);
- Leprosy and Tuberculosis Statistics (consisting of quarterly statistics returns, leprosy record card, leprosy treatment register);
- HIV/AIDS forms (consist of NACP/001 Form for HIV testing request, NACP/002 Form for HIV infection

report, NACP/003 Form for AIDS cases report and NACP/004 Form for monthly screening report);

- The Onchocerciasis Control Programme implement a rapid assessment method for community diagnosis record form;
- Nigerian Guinea Worm Eradication Programme Form 1, for village household survey and Form 2 for LGA survey;
- NPI (EPI) forms (FMH/STATS – monthly immunization activity, EPI disease sentinel surveillance summary reporting form and state monthly immunization summary);
- Family Planning Statistics (Form I for individual records system, that is, Family Planning Client Record, Form 2 for daily activity register, Form 3A for summary family planning activities, CF003a for Planned Parenthood Federation of Nigeria daily collation of clients served and contraceptives issued and distributed, CF003b for Planned Parenthood Federation of Nigeria weekly collation of clients served and contraceptives issued and distributed);
- Control of Diarrhoeal Diseases CDD Monthly report;
- Essential Drug Action Programme (BI/NG/02/00 District collation form, BI/NG/04/00 Bamako Initiative monitoring system, data collation form for district level, BI/NG/05/00 Bamako Initiative monitoring system, data collation form for LGA level, BI/NG/01/00 Bamako Initiative programme supervisory checklist;

**The PHC M&E system** operates at three levels: home; health facility (ward); and local government level.

Home Level:

- Child Home-based Record
- Adult Home-based Personal Record
- Ante-natal Record

This has been modified since 2001 to include:

1. The PHC child health card
2. The personal health card

Village Level

- VHW/TBA Pictorial Record of Work
- Community Maternity Profile (Wall Chart)
- Community Family Planning Profile (Wall Chart)
- Community Demographic Profile (Wall Chart)

Health Facility Level:

- Clinic Master Card

\*Monthly:

- Tracer Disease Cases I HF- 1
- Births and Deaths I HF-3
- Community Health Activities I HF-5
- Ante-natal and Family Planning I HF-7

\*Annual:

- Tracer Disease Cases I HF-2
- Births and Deaths I HFA-4
- Community Health Activities I HF-6
- Ante-natal and Family Planning I HF-8
- Tracer Diseases and Out-patient Attendance 2HF-1

Other PHC M&E forms consists of:

\*BOOK 2HF

- Tracer Diseases and OPD Attendance 2HF- 1
- Monthly Record 2HF-2
- Annual Record 2HF-2
- Antenatal Care and Pregnancy Outcome

\*BOOK 3HF

- Tally Sheet 3 HF- 1
- Daily and Monthly Record 3HF-2
- Annual Record 3HF-3

\*Family Planning BOOK 4HF

- Daily Record 4HF-I Side A (New Acceptors) and B (Revisits)
- Monthly Record 4HF-2 Side A and B
- Annual Record 4HF-3 Side A and B

\*Immunization BOOK 5HF

- Tally Sheet 5HF- 1
- Monthly Record 5HF-2
- Annual Record 5HF-3

\*In-Patient Care BOOK 6HF

- Daily/Monthly Record 6H:F-1
- Annual Record 6HF-2

\*Environmental Health Activities BOOK 7HF

- Diary of Environmental Health Activities 7HF- 1
- Monthly Record 7HF-2
- Annual Record 7HF-3

\*Growth Monitoring and Promotion 8HF

- Tally Sheet 8HF-1
- Monthly Record 8HF-2
- Annual Record 8HF-3

\* All these forms were modified in 2001 as follows:

1. Facility based family master card
2. Attendance registers
3. Monthly records
4. Annual records of PHC services
5. Other facility based forms

e) Additional Constraints

Field visits to a representative number of state ministries of health and local government health departments revealed the following additional constraints:-

i) Finance:- A major problem of health management information systems (HMIS) is inadequacy of funds. This problem persists across all levels of health care data collection system. The principal reason for the poor funding of HMIS activities is the absence of a HMIS-specific budgetary line (vote of charge, VOC) at the federal, states and LGAs, including health institutions/facilities.

ii) Shortage of staff:- Collection of health information is hampered by shortage of qualified staff at all levels of the health care delivery system. At the LGA health facility level, health information collection is a secondary function of health personnel who have to carry out some more demanding tasks such as taking deliveries of babies, attending to patient care and dispensing drugs. Often, these members of staff are not

trained for data collection and therefore may not be fully aware of the importance of such data particularly as no returns are ever received to reward faithful filling of such forms.

iii) Shortage of materials:- Basic facilities for health information collection, compilation and management are not always available. The health establishments are often without the necessary forms for collecting health data.

iv) Transportation Difficulties: - When forms are dutifully filled, transportation difficulties often prevent immediate forwarding of the returns for processing.

v) Inadequate coordination of health data flow:- There are multiple channels of information flow with little interaction, collaboration or co-ordination. This often results in differing figures for health statistics depending upon the organizations involved in collection and analysis. Many international organizations do not even reconcile their figures with those emanating from the FMOH/SMOH nor exchange figures with them.

vi) Inadequate appreciation of the importance of HMIS:- Inadequate appreciation of the role of health information to planning and programme implementation, resulting in complete absence of a budgetary line for health data collection has become the norm at all levels of government.

vii) Complexity of data collection instruments:- Too many forms are filled at all levels of governments and with a great deal of overlap. Many of these forms are far too complex for a health worker with other primary job-functions.

viii) Lack of feedback in the data collection system:- Health data are generated and collected from the health facilities and are passed on to the LGA and the FMOH and NPHCDA through the state ministry of health. Even where there are other flow channels, the forward flow of information is emphasized and at times enforced but feedback is almost non-existent anywhere along the line.

ix). At the LGA, state and federal levels, there is a huge back-log of unprocessed data. Consequently, publications on health situation analysis are usually many years behind. The few publications that are available are not distributed nor produced in simple non-technical language and graphic forms for the operators of HMIS at the lowest levels to understand. Unless well motivated, records officers do not see the effect of incessant form filling on their day-to-day operations. Some feedback no matter how little will not only encourage the collectors and compilers of these data but reassure them that they are used somewhere for health management purposes.

**The existing health information system in Nigeria is characterized by extensive duplication of data collection, entry and analysis (no fewer than 50 data forms are in use at the federal level alone); multiple data pathways; lack of standard case definitions; lack of clarity with regards to data submission and responsibilities; inadequate quality control measures; inadequate and ineffective staff training in data analysis, interpretation and use at all levels; mis-reporting of conditions, poor understanding, low confidence and acceptability; weak monitoring, evaluation and managerial capacity at the periphery**

**and the absence of a strong central co-ordinating institutional framework.**

Following current events the FMOH, SMOH and LGA health authorities are beginning to realize importance of the health information system in patient care, disease surveillance and control, health services plan and monitoring and evaluation. The preceding situation analysis highlighted the constraints, challenges and opportunities for refocusing the NHMIS, especially in co-coordinating and integrating existing information systems to enhance its effectiveness

f) International Collaboration in Health Information System:

Over the years, UN agencies and other bilateral and non-governmental agencies have been involved in strengthening some aspects of health information system in Nigeria, especially in providing computers, software and training. Unfortunately, in the most part, these activities have contributed to the development of the parallel health information sub-systems and features described in the preceding section. For many years the USAID-sponsored CCCD and FHS projects were responsible for strengthening the PHC (M&E) system and the DSN. They were equally responsible for promoting and sustaining the parallel family planning system and a majority of the ad hoc survey systems.

International and donor agencies' support for the development of health information system is desirable. This must be channeled and coordinated to support a well articulated HIS programme framework. The loss of USAID support for HIS development resulted in the collapse of significant components of the national HIS, thus demonstrating the vulnerability of

over-dependence on external assistance for the development and sustainability of the national HIS system.

## 5. THE NATIONAL HEALTH MANAGEMENT INFORMATION SYSTEM PROGRAMME

**The total of all health information sources make up the National Health Management Information System (NHMIS). The NHMIS programme involves the articulation, establishment and development of the system's constituent parts, including the provision of appropriate infrastructure to make the system function optimally at all levels. The Federal NHMIS Unit is at the apex of the national health information system and provides a focal point for co-ordinating health information activities nation-wide.**

The widely recognized deficiencies existing in the present national health data systems generated some responses from the Federal Ministry of Health and international agencies which were aimed at capacity building. Hitherto, the responses have been largely piecemeal, partial in scope, under-funded, unco-ordinated and have adopted a project approach (as opposed to a programme approach) and could not be sustained beyond the duration of (donor-driven) technical assistance. It thus became imperative that the development of HMIS must be premised on a programme approach, reflecting the need for integration and comprehensives.

Within the context of implementing government mandate to establish NHMIS and to strengthen planning, monitoring and evaluation, as an integral part of national health system development, a national conference was organized in 1992 to

articulate the content, structure and an action agenda to implement the NHMS programme.

The NHMIS programme is aimed at putting in place and sustaining, as an on-going effort, an institutional structure interfacing at various hierarchical levels. It involves the provision of appropriate infrastructure for collecting and analyzing data. The principal objectives of the NHMIS programme are:-

- to establish, develop and strengthen HMIS units appropriate to each level of service delivery and decision making;
- to provide information, to manage the health care system;
- to provide information for assessing the state of health of the population;
- to provide information to identify major health problems and to set priorities at the local, state and national levels;
- to provide information to monitor the progress towards stated goals and targets of the health services;
- to provide indicators for evaluating the performance of health services and their impact on the health status of the population;
- to produce and validate standardized data collection forms; to provide technical support and review of data validation and quality assurance processes;
- to serve as a focal point in FMOH and other appropriate levels for discussion/review for proposed health data and surveys by international agencies and by other governmental and nongovernmental bodies;

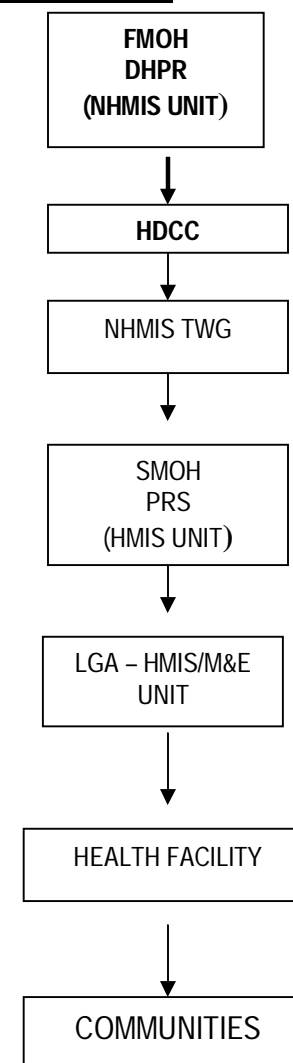
- to prepare and disseminate protocols for collecting comparable data on national health objectives and indicators;
- to prepare appropriate HMIS manuals for the operation of the system;
- to provide information to those who need to take action, those who supplied the data and the general public.

a) Element of the NHMS Programme Structure:

i) Structure

The structure of the National Health Management Information System is illustrated in Figure 1. It shows the institutional framework of hierarchical levels from which health data and information are to be obtained. At the apex of the structure is the NHMIS Unit. The Unit relates horizontally with the Federal Office of Statistics, the National Population Commission, the National Bureau of Statistics(NBS), other ministries, international health organizations and other key health data generating agencies in the public health sector, such as the National Primary Health Care Development Agency (NPHCDA), National Agency for Food, Drug Administration and Control (NAFDAC), the National Health Insurance Scheme (NHIS), etc. The relationships with these bodies are illustrated in the expanded operational diagram of the NHMIS in Appendix 3. Vertically, the NHMIS Unit relates and co-ordinates health information related-activities of FMOH departments, parastatals, agencies and professional bodies and interfaces through established protocols with health information related activities of SMOHs and LGAs and other health facilities (public and private).

**MANAGEMENT STRUCTURE OF THE NATIONAL HEALTH MANAGEMENT INFORMATION SYSTEM PROGRAMME**



## ii) Roles & Responsibilities

The principal roles and functions of each HMIS units at local, state and federal levels are discussed under Responsibilities At Each Level in the NHMIS policy section of this document. In addition, the NHMIS operational manual, which is available at all levels, addresses, in greater details, specific responsibility, operational modalities and interactive roles with regards to horizontal flow and sharing of data and feedback processes between key agencies, departments and units, including international agencies and NGOs that operate at the same level with the HMIS units. (See Appendix 3: NHMIS: Expanded and Operational Organogram).

## iii) Contents:

The contents of the NHMIS programme are determined by the range of information needed for decision making and as articulated in the National Health Indicators compendium (Appendix 1). From the indicators are derived the minimum national core data to be collected via appropriate data collection instruments (forms, registers, etc.)

The data sources for the NHMIS programme would come primarily, from 4 major categories of data: (a) Inputs; (b) Processes; (c) Outcomes; and (d) Impacts of the health care delivery systems. Inputs and Processes are mostly concerned with policies, manpower, facilities, funding, appropriate regulations, manuals, logistics, equipment, forms, registers and information technology. With respect to Outcomes and Impacts, data is collected to estimate national health indicators and targets for monitoring and evaluation of the

performance of the National Health Plan and the overall goal of the National Health Policy.

The major types of data required for assessing the state of health of the population and the health system would come from:-

- disease and related reporting mechanisms; e.g., the revised HMIS forms;
- vital statistics, e.g. from the National Population Commission.
- Sentinel Surveillance, focusing on the monitoring of key health indicators in the general population or in special populations. A sentinel surveillance system is to be maintained for the STD/HIV/AIDS programme, Acute Flaccid paralysis (AFP) surveillance a global strategy is to be maintained for poliomyelitis eradication program;
- registries, to monitor the public health impacts of non-acute diseases. Exposure and work-related based registries may be particularly useful in tracking the health protection objectives of the environmental and occupational health activities of the Ministry;
- surveys, health and demographic surveys, such as are undertaken by NBS, National Population Commission are particularly useful in tracking national level indicators of the prevalence of health conditions and estimates of other socioeconomic parameters. Examples of these are health- interview surveys, service provider surveys, health manpower/facilities surveys, non-communicable diseases surveys and other ad hoc special programme requirements. Statutorily, these are to be coordinated by the Ministry, through the Department of Health Planning and Research (DHPR);

- administrative and routine service data collection systems, e.g., MIS data from support services, etc.

#### iv) Data Bases:

Four major categories of data are to be maintained at all levels of the health care system, with appropriate data-structure format provided by the central NHMIS Unit. The four categories of data are: (1) Inputs Database; (2) Process Database; (3) Outputs Database; and (4) Outcomes or Impacts Database.

Inputs refer to resources and requirements to create and enable the success of health programmes. They are the precedent actions that must be taken (invested) for the health system. They are not limited to physical inputs, but may also include provision of appropriate institutional arrangements, policy instruments and legislation.

Process refers to a set of activities that must be undertaken or actions and rules and regulation that are required to take place. This may include for instance, protocols for immunization, for collecting, storing, processing and making available health data, etc.

Outputs database will concern itself to keeping time-series data on activities completed in relation to set targets. An example is interval data on immunization status of children under-5 years old.

Another example is the efficacy of health intervention programmes, e.g., the eradication of guinea worm and -control of tuberculosis. Outcomes/Impacts data is concerned with

health status measures or indicators. An example is the level of morbidity and mortality for a given condition and for specific target population: IMR, U-5MR, MMR, prevalence of HIV/AIDS, etc. However, it is noteworthy that Outputs are direct measures of programme efforts, while Outcomes/Impacts are indirect results of programme efforts as they are more likely to be influenced by other socioeconomic development.

#### b) NHMIS Programme Key Results Areas:

In order to refocus and strengthen the health information system processes, the following have been identified as key results areas:-

- Nation-wide health information system assessment and state HMIS Programme institutionalized;
- Develop national health measurable objectives and indicators with minimum national health data set established;
- Strengthen epidemic surveillance;
- Establish electronic voice/data transfer wide-area network system to support epidemic surveillance and emergency response mechanism;
- Strengthen vital registration system;
- Develop and continuously review appropriate formats and protocols for health data collection and for monitoring and evaluation of all activities of the Federal Ministry of Health;
- Maintain appropriate databases for health programmes, health facilities, health manpower and health system support activities and functions;
- Establish a computerized medical information system for all federal health institutions (e.g., teaching

hospitals, federal medical centres, specialist hospitals, specialized programmes);

- Strengthen institutional capacity of SMOH (DPRS) for data processing and technical report writing and publishing;
- Enhance capacity for health data programme co-ordination among all health data producers and users at all levels;
- Training of personnel on the use of NHMIS manuals and forms for data collection; Advocacy and empowerment of users of health data and information;
- Strengthen institutional capacity of SMOH (DPRS), HMB, and LGAs (GIS) for data storage, processing, retrieval, information generation and dissemination; Install standardized database management system at the SMOH (DPRS).
- Ensure adequate enabling legislation for NHMIS activities and compliance with the reporting system;
- Establish sustainable mechanism for adequate funding of the NHMIS Programme at all levels of service delivery.

#### c) Legal Framework:

The National Health Policy and the National Health Plan establish the framework for advancing the health agenda of the nation.

The National Health Act will give support to the National Health Plan. This is particularly relevant for the NHMIS programme in order to institutionalize required practices, procedures and expectations with respect to health data production and dissemination; to promote standardization; and to ensure that health information will be available when and

where needed for informed decision making, especially in profiling the state of health of the population and the health system.

## 6. THE REVISED HEALTH MANAGEMENT INFORMATION SYSTEM

The guiding principle for the revised HMIS is to keep things simple, practicable and sustainable.

The revised HMIS consists of a fewer number of forms, Tally Sheets (Register) with associated summary forms, MIS Matrix Form, Sentinel Surveillance Form Registers for occupational/environmental and non-communicable - diseases, Baseline Surveys and Health & Demographic Surveys. The recommended Tally Sheets would be available in all facilities in the form of durable color-coded registers, which are based in the facility. But, because all facilities at the same and different levels of services do not provide the same services, some data items on the facility summary forms will 'be left un-filled.

#### a) The Revised HMIS Forms

The NHMIS forms consists of.-

##### i) Routine Data Collection Summary Forms

**NHMIS Forms 000:** Community based Summary form:

This form is used by the community Village Health Worker to summarise activities at monthly intervals and sent to the Health Facility through the Community Health Extension Workers (CHEWS)

**NHMIS Summary Form 001A & B** – Health Facility Community Outreach Forms:

This form is used by the health facility to summarize community outreach activities at monthly intervals of time. The aggregated summary is transferred into health facility form 001.

**NHMIS Summary Form 001** – Health Facility Based Forms:

This form is used by the health facility to summarize activities at monthly intervals of time the summary is sent to the LGA. A daily register has been developed for Health facility, from which data is summarized monthly.

**NHMIS Summary Form 002**

This form is used by the LGAs to summarize returns from all health facilities in their area at quarterly intervals for onward transfer to SMOH, DPRS (HMIS Unit).

**NHMIS Summary Form 003**

This form is used by the SMOH, DPRS, to summarize returns from all LGAs in the state for onward transfer to the Federal NHMIS Unit every six months

Each of these forms addresses:

- Antenatal Care and Pregnancy Outcome
- National Programme on Immunization
- Family Planning Services
- Family Planning Commodity Utilization
- Growth Monitoring and Promotion
- In-patient Cases
- In-patient Deaths
- Out-patient Cases
- Disease Surveillance and Notification

- Pharmaceutical Services
- Drug Inventory/ Utilization
- Laboratory Services
- Occupational Health Services

ii) HMIS Matrix Form: for Administrative and Support Services

A simple generic MIS form called the HMIS Matrix Form, is to be administered at all levels. This form will be used to collect information on support services for technical programmes (functions). The support service MIS should, at the minimum, collect information on the following: finance, personnel, training, statistics, supplies, transport, maintenance and others. This will be implemented, first, by level of service delivery (that is, FMOH, SMOH and LGA), and then progressively expanded to technical functional areas (departments, units, programmes etc.) such as NPI, AIDS/STD, CDD/ARI, Hospital Services, MCH/FP, other disease control programmes, etc. in order to achieve a full accounting system. The summary form for this purpose shall be presented in the form of a matrix, with the support services on the left-hand side and the level of service/technical functions across the top of the matrix. These data and information are to be collected on an annual basis.

iii) Sentinel Surveillance System (SSS) and Registers:

These consist of STD, HIV/AIDS Sentinel Surveillance Form and registers for occupational and environmental health and non- communicable diseases. The sentinel surveillance of special groups would be undertaken yearly, using a special form. Registers for environmental and occupational health and specific non- communicable diseases are to be placed with appropriate governmental and nongovernmental institutions and societies, major industries and associations.

iv) Baseline Surveys (for Specialized Health Programmes):

Initial baseline surveys of geographic areas of focus are to be conducted for specialized health intervention programmes. This is to provide benchmark data against which to monitor such programmes. Thereafter, the data requirements for programme monitoring should be sourced from routine reporting systems, except where otherwise stated. This is to conserve resources, strengthen the existing system and keep the NHMIS data systems simple and manageable as opposed to establishing duplicative/parallel functions.

v) Health and Demographic Surveys:

Health and demographic surveys, especially when conducted on a regular basis, provide the most reliable source of information for assessing and monitoring nation-wide trends in the prevalence of health conditions for which national and international targets have been established. The NBS currently fields a national integrated survey of households. Up to 1999 Federal Office of Statistics (NBS) conducted the National Demographic and Health Survey. This activity is now the responsibility of the National Population Commission.

It is desirable for FMOH, through DHPR, to establish sustainable modality, in concert with NBS and other agencies, for conducting on a regular basis a health and demographic survey. Other special purpose surveys, such as baseline surveys, may be conducted on an ad hoc basis to meet immediate programmatic data requirements. It is important that all sample surveys are representative of the source population in order to increase the validity and reliability of findings extrapolated to the larger population.

vi) Special Purpose Health Data:

Ad hoc special-purpose health data requirements will be implemented as the need arises (e.g., health manpower and facilities surveys, health nutrition and examinations survey, maternal mortality, etc.). Such exercise will be undertaken by the NHMIS in active collaboration with the National Bureau of Statistics (NBS) and other relevant partners and interested parties.

b) Data Flow System:

**No summary forms would be sent from one level directly to multiple layers of levels higher than the immediate (next) higher level. This is to ensure ownership, NBSter immediate utilization and strengthen capacity building in each level for the continuum of health information activities identified for each aggregative unit.**

The various data flow pathways are illustrated in the data flow charts in Appendix 2.

All summary forms with the designation 000 in use in communities are to be sent to the health facilities through the Junior Community Health Extension Workers (JCHEWs). Daily registers have been developed for the health facilities for standardized health data collection nationwide. Data on daily registers are summarized monthly into form 001. Summary forms with designation 001 are to be sent to the local government area (LGA) – M&E unit to the attention of the PHC M&E Co-ordinator. Information from the health facilities will be summarized in the LGA summary 002, which is in turn sent to state MOH, HMIS Unit. The state HMIS Unit shall forward a

copy of the HMIS Summary Form 003 to the relevant department and units within the SMOH such as the PHC department, the epidemiology unit, relevant health programmes, NGOs, international health organizations etc with state level offices. The state NHMS unit shall use the HMIS Summary Form 003 to send state level summary to the Federal NHMS Unit.

Within the Federal DHPR, NHMIS Unit are to be located designated desk officers/data expeditors who will be responsible for facilitating the sharing and transfer of data to relevant FMOH level departments and agencies such as NPHCDA, Epidemiology Division of Department of Public Health, Hospital Services, Community Development and Population Activities, and other federal institutions such as the National Bureau of Statistics (NBS) and international agencies etc.

c) NHMIS Publications:

Within the public health sector, the statutory power for the release and publication of health statistics is vested in the Office of the Honourable Minister of Health. Such health information must be passed through the Department of Health Planning and Research, specifically the NHMIS Unit. The NIMS Unit is the apex health databank. Consequently, all official publications will be deemed to have been released by the NHMIS Unit on behalf of the Ministry. Such publications would carry the name NHMIS Unit and that of the department, agency or unit directly in-charge of the subject matter. Appropriate summary of all health data, as collected through the NHMIS will end up at the NHMIS Unit. Feedback processes

will take the reverse route, from the highest level to the lowest level.

The following minimum number of publications are to be sustained:-

i) Federal Level:

- Health In Nigeria. (an annual profile of the health status and situation in the country, including the health system)
- Nigeria Bulletin of Epidemiology (a quarterly publication, focusing on notifiable diseases)
- National PHC Profile (an annual publication of the NPHCDA)
- Monthly Disease Trends
- PHC News (a bi-annual publication of the NPHCDA)
- All major health programmes, e.g., TB and Leprosy, STD/AIDS, guinea worm, schistosomiasis, etc., to publish annual reports with the collaboration of the NHMIS Unit
- Health Alert (an ad hoc publication of the NHMIS Unit on health development and/or events of immediate public health interest).

ii). State Level:

- State Health Bulletin (an annual publication).
- State Health Plan

iii). LGA level:

- Health Profile (a quarterly publication).
- LGA Health Plan

d). National Health Status and Performance Indicators:

A consensus set of National Health Indicators (NHI) has been developed to operationalize the National Health Policy and the National Health Plan (2004 - 2007). The NHI points out the kinds of data and - information to be made available for assessing the performance of the health sector. In selecting the indicators, action- strategy areas in the national health policy were identified as: policy, context; health status access and utilization and socioeconomic variables. The action strategies have been translated into key priority areas within which measurable objectives, targets, indicators and responsible agencies have been identified. The development of health indicators is a dynamic process and reflects the changing nature of issues of public health interest to the country. The priority areas, objectives, indicators and targets will change from time to time, reflecting the state of health of the population.

Each form specific to levels of data collection collects minimum core data. The National Minimum Data Sets is, as the name suggests, the minimum data required at each level of health care for policy formulation, management decision, priority setting and allocation of resources and accountability. State and LGAs may have cause to collect additional information, but the core minimum must be maintained and caution exercised not to unduly overload the reporting system.

e) Managing HMIS Units:

The establishment and management of an effective NHMIS, requires substantial investment by federal, state and LGA health authorities in manpower and infrastructural

development and in technical assistance within and between the levels. Thus, as part of the overall strategy to improve the quality and quantity of health data and information available for decision-making, NHMIS units are to be provided with a threshold of minimum package to enable them function effectively.

f) HMIS Unit Minimum Package:

i) Federal NHMIS Unit

Requirements

- NHMIS Working Document (plan)
- NHMIS Operational Manual
- Adequate office space
- Office furniture
- Micro-computers for data processing and storage (10)
- High capacity printers, photocopiers
- Full complements of desktop publication (DTP) equipment
- Appropriate software
- Telematics: telephone lines (2) with fax, network system, internet, website, VSAT
- Vehicles: 4-WDR (2), Utility bus(1)
- Binding machines
- Digital camera and projectors
- Power backup and/or Generator
- GIS Software
- HMIS Staff. National Expert/Consultant (1), HMIS specialist (3) Epidemiologist (2), Public Health Specialist (1), Computer Programmer (2), System Manager (1), User-services staff (1), Data Entry and

Processing Clerks (6), office assistance (3)  
 Statistician (2), System Administrator (1).

Activities

- Data storage, analysis, publication and presentation
- Documentation and publication services
- User services
- Clearing house for health information
- Survey operations
- On-line services
- Technical assistance
- Database development
- Informatics services
- HMIS Forms reproduction
- Computerization
- Training.

ii) State HMIS Unit

Requirements

- State HMIS Working Document (plan)
- NHMIS Operational Manual
- Adequate office space
- Office furniture
- Micro-computers for data processing and storage (6)
- High capacity printers, photocopiers Full complements of DTP equipment
- Appropriate software
- Telematics: telephone lines (2) with fax network system, internet, website.
- Vehicles: 4-WDR (2), Utility bus(1)

- Binding machines
- Digital camera and projectors
- Power backup and/or Generator
- GIS Software
- HMIS Staff. HMI Specialist (2) epidemiologist (1), public health specialist (1), Computer Programmer (1), System Manager (1), User-services staff (1), Data Entry and Processing Clerks (3), office assistance (3) Statistician (2), System Administrator (1).

Activities

- Data storage, analysis, publication and presentation
- Documentation and publication services
- User services
- Clearing house for health information
- State Health Profile
- HMIS Forms reproduction
- Training

iii LGA-M&E UNIT

Requirements

- LGA HMIS Working Document (plan)
- NHMIS Operational Manual
- Office space Office furniture
- Micro-computer (1)
- Dot Matrix printer (1), photocopier (1)
- Telematics: telephone lines (1) with fax
- Motorcycles (2)
- Binding machines
- Power backup and/or Generator
- Geographical Position Machine (GPS)

- HMIS Staff. HMIS Specialist (1) PHC M&E Coordinator (2), Assistant M&E Coordinator (3), System Manager (1).

- Data usage
- Training

### Activities

- Data storage,
- Analysis, presentation
- Data forwarding
- User services LGA Health Profile
- HMIS Forms reproduction
- Training

### iv HEALTH FACILITY – HIS

#### Requirements

- Adequate office space for record keeping with shelves and cabinets etc.
- Office furniture
- HMIS facility level summary forms with enough stock to last six months
- Working materials: pencil, erasers, sharpeners
- Solar powered calculators
- Health Record Officers/Assistants (2)

#### Activities

- Data collection daily in registers and monthly in facility summary forms
- Data storage
- Data forwarding
- Data sharing

## **7. FUNDING AND SUSTAINABILITY**

Regular and adequate budgeting for HMIS-related activities and functions is a requirement for the sustainability and maintenance of the NHMIS across all tiers of government. The National Council on Health has approved that between 0.5% and 1.0% of the health capital budget should be released annually for funding NHMIS-related activities at all levels: federal, states and local government areas. A circular to implement this decision has since come into effect (see Appendix 6) . However to assure effective take-off of the revised NHMIS, states with health system strengthening projects funds, such as HSF- participating states, ADB-assisted health system rehabilitation projects, and other states with health system support from UN agencies and bilateral organizations, are expected to commence immediate implementation of the revised HMIS forms.

Specialized health control programmes are expected to budget appropriately for mis-related activities, which they will implement in collaboration with the NHMIS Unit. Specifically, they are expected to contribute in strengthening the health data processes in their respective states of operation.

International and bilateral agencies would be expected to provide funding and technical assistance for strengthening the HMIS processes. Such assistance should be coordinated with the NHMIS unit to strengthen any component of the system at any level (Federal, State and LGA).

## APPENDIX I:

## PLAN OF ACTION FOR STRENGTHENING NHMIS

KEY RESULTS AREAS	Strengthening the National Health Management Information System					
OBJECTIVES:	To provide supporting infrastructure, NHMIS forms and encourage integrated management of health data.					
STRATEGY:	Meeting NHMIS minimum package, printing, distribution and training on forms. Database of Health facilities, Service Availability Mapping, HDCC/ HDPU meetings.					
S/N	Activities	Timing	Responsibilities	Resources	cost	Expected Output
1	Meeting the NHMIS minimum package at Federal Level	2007-2009	FMOH/Partners	Equipment, Vehicles and working materials	N30m	NHMIS minimum package met.
2	Meeting the HMIS minimum package at state and LGAs levels	2007-2009	States/LGA and partners	Equipment, Vehicles and working materials	N30m/State	NHMIS minimum package met.
3	Printing of level specific NHMIS forms.	1 <sup>st</sup> and 2 <sup>nd</sup> Qtr 2007	States/LGA and partners	Funds	N10m/State	Forms printed for levels of data management
4	State, LGA and Health facility level training on NHMIS forms	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> Qtr. 2007	States/LGA and partners	Technical support training materials funds for meeting.	N1.5m/State	State and LGA training NHMIS held.
5	Federal technical support at state level training	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> Qtr. 2007	State partners	FMOH Resource persons cost of participation	N250,000/State	Training workshop monitored to ensure standard
6	Quarterly HDCC meetings	2007	FMOH/ partners	Funds for meetings	N1.5m/meeting	HDCC meeting held. Report of meeting.

KEY RESULTS AREAS	<b>Strengthening the National Health Management Information System</b>					
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S/N	Activities	Timing	Responsibilities	Resources	cost	Expected Output
7	Annual HDPU meeting	3 <sup>rd</sup> Qtr. 2007-2009	FMOH, States and partners	Funds for meeting, DSA, transportation	N3m/year= N9m	HDPU meeting held and Report of the meeting.
8	State HDCC meetings	Quarterly	States/ partners	Funds for holding quarterly State HDCC meetings	N300,000 / meeting	
9	Listing of health facilities nationwide. Development of Database.	2007	FMOH/ Partners	Procurement of Consultant services	N5.50m	Database of health facilities available.
10	Services Availability mapping in States	2007-2008	States/ Partners	Procurement of PDAs, GPS, Training cost, Trainee DSA, Venue, Transportation.	N3.5m/State	Maps of services availability as baseline information.
11	Request for Technical support to States on SAM	2007-2008	States/Partners	Resource persons DSA and transportation	N1.5m/State	Technical support provided
12	Support to HMN activities	2007	FMOH/ Partners	Funds for meetings.	N2.0m	HMN activities supported

KEY RESULTS AREAS	<b>Strengthening the National Health Management Information System</b>					
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S/N	Activities	Timing	Responsibilities	Resources	cost	Expected Output
13	Nigeria Evidence Based Health System Initiative (NEHSI) project.	2007-2009	FMOH, IDRC/CIDA, C/Rivers, Bauchi State.	Establishment of DSS/ MSS Sites Funds for Meetings, Technical Assistance.	N100m	Functional DSS/MSS sites in support of NHMIS
14	National Demographic and Health Surveys (NDHS)	2008	National Population Commission, FMOH	Planning meetings, field work, analysis and report writing	N120m	NDHS conducted
15	Sentinel Survey 2007	2007	National Population Commission, FMOH	Planning meetings, field work, analysis and report writing	N35m	Sentinel survey conducted
16	Multiple Indicator Cluster Survey (MICS)	2007	NBS, UNICEF	Planning meetings, field work, analysis and report writing	N180m	MICS conducted
17	COLLABORATIVE SURVEY ON SOCIO-ECONOMIC ACTIVITIES IN NIGERIA	2007	NBS/CBN/NCC	Planning meetings, field work, analysis and report writing	N80m	Survey on socio-economic activities in Nigeria conducted
18.	Training for Military and Paramilitary personnel on NHMIS format	3 <sup>rd</sup> Qtr 2007	FMOH	DSA, Transportation cost, cost of venue for trainees	N750,000	Military and paramilitary personnel trained on use of revised form

KEY RESULTS AREAS	ICT in development of NHMIS					
OBJECTIVES:	To deploy ICT in the development and implementation of NHMIS activities					
STRATEGY:	Electronic data collection, Electronic data transfer, networking					
S/N	Activities	Timing	Responsibilities	Resources	cost	Expected Output
1	Federal level Training on NHMIS software	1 <sup>st</sup> Qtr. 2007	FMOH, Partners	Consultancy services	N900,000	Federal level training conducted
2	Zonal Training on NHMIS software	1 <sup>st</sup> Qtr. 2007	FMOH, Partners	Technical Support, consultancy services.	N500,000/zone	Zonal level training conducted.
3	State and LGAs level training on NHMIS software	2 <sup>nd</sup> and 3 <sup>rd</sup> Qtr. 2007	State and Partners	DSA, materials, Transportation cost, cost of venue for trainees	N2.0m/State	State and LGA level training conducted on NHMIS
4	Procurement of PDAs/ accessories for electronic data collection and training.	3 <sup>rd</sup> Qtr. 2008	States, LGAs, and partners	Funds for PDAs and training	N750,000/State	PDAs & assessories procured for electronic data transfer
5	Electronic data transfer	3 <sup>rd</sup> Qtr. 2008	FMOH/ States, LGAs and partners	Hardware, software. Development of WAN consultancy	N2.5m	Data transferred electronically
6	Networking of SMOH – DPRS with FMOH-DHPR/NHMIS	3 <sup>rd</sup> Qtr. 2008	FMOH, FHIs	Development of WAN consultancy services.	N7.5m	SMOH-HPRS networked with FMOH-DHPR/NHMIS unit
7	Networking of FHIs with FMOH- DHS and DHPR.	3 <sup>rd</sup> Qtr. 2008	FMOH, FHIs	Development of WAN consultancy services.	N7.5m	FHIs networked with DHS/DHPR

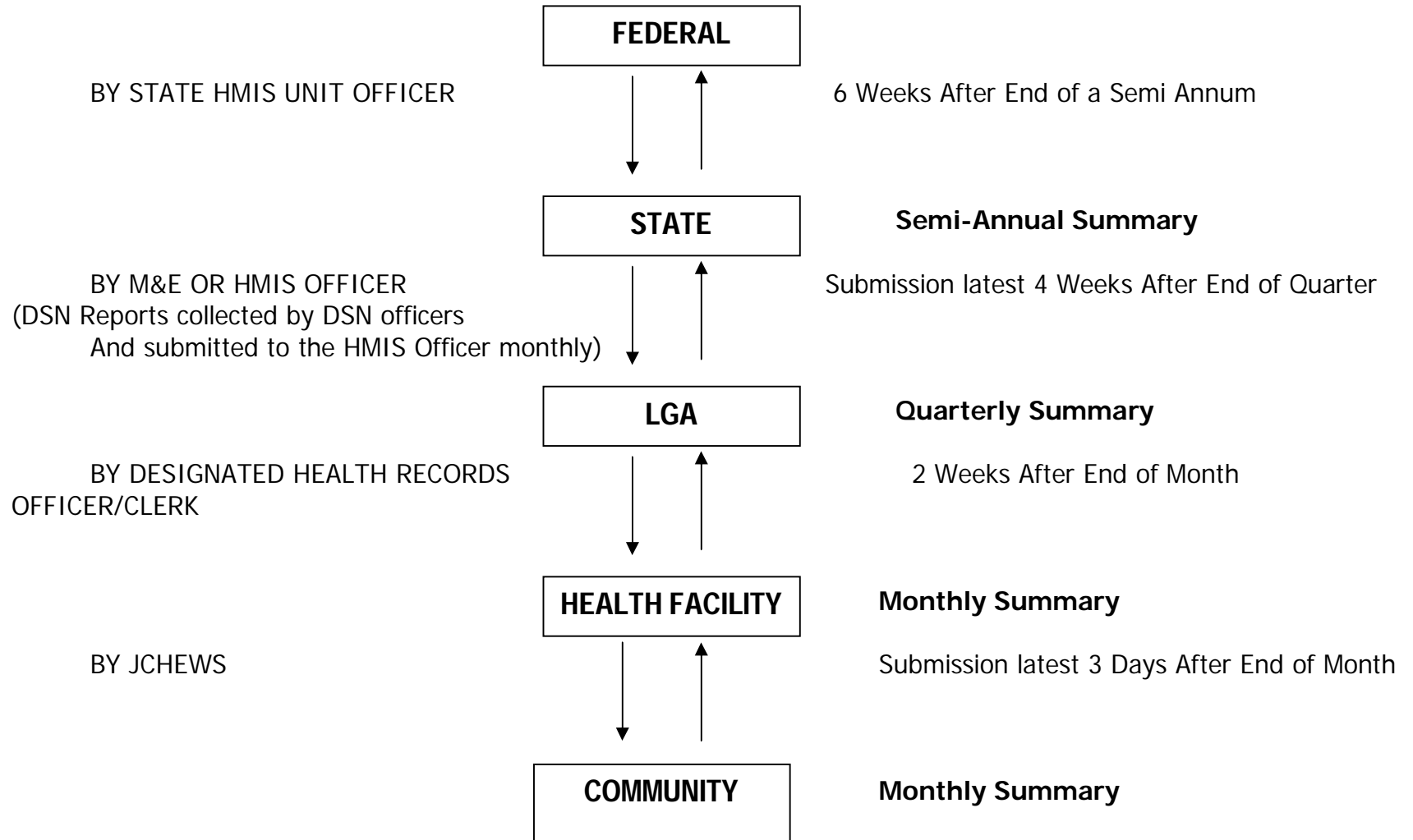
KEY RESULTS AREAS	<b>Supervision, Monitoring &amp; Evaluation of the NHMIS programme implementation</b>					
OBJECTIVES:	To assess the state of progress in programme implementation and its performance					
STRATEGY	Establishment of monitoring protocol for NHMIS programme implementation at all levels in line with stated activities and expected outputs					
	<b>Activities</b>	<b>Timing</b>	<b>Responsibility</b>	<b>Resources Needed</b>	<b>Cost/Source</b>	<b>Expected Output</b>
1.	Development of a field monitoring checklist instrument for NHMIS programme at all levels.	2 <sup>nd</sup> QTR. 2007	FMOH, NPHCDA, NPI, NBS, NPC, Partners and selected States.	Funds for materials and distribution of protocols.	N1.50m	Monitoring and Assessment instrument developed.
2.	Preparation of HMIS Quality Assurance (QA) Manual (Handbook) for use at each level of health care delivery.	3 <sup>rd</sup> Qtr. 2007	FMOH, SMOH, NPHCDA and Partners.	Funds for preparation, mass production and distribution of QA Handbook	N4.5m	QA Handbook produced and distributed.
3.	Support to Operations Research on NHMIS.	4 <sup>th</sup> Qtr. 2008	FMOH NPHCDA SMOH, Partners LGAs	Resources for operations research	N5.0m	Operations research established on programme implementation and impact.

KEY RESULTS AREAS	Production and dissemination of annual bulletins					
OBJECTIVES:	To produce annual bulletin on health data in Nigeria					
STRATEGY:	Collect, collate, analyse and publish					
	Zonal dissemination					
	Activities	Timing	Responsibility	Resources Needed	Cost/Source	Expected Output
1.	Support in Publication of the Health Data Bulletin in Nigeria.	3 <sup>rd</sup> Quarter of every year	FMOH SMOH LGA	Funds for materials for publication of the Bulletin.	N5.0m (FMOH) SMOH LGA	Health Data Bulletin in Nigeria published.
2.	Publication of State/LGAs Health bulletins	3 <sup>rd</sup> Quarter of every year	SMOH LGA	Funds for materials for publication of the Bulletin.	N5.0m SMOH LGA	Health Bulletin in Nigeria published.
3.	Dissemination of Health in Nigeria.	4 <sup>th</sup> Quarter of every year	FMOH SMOH LGA	Funds for meeting, zonal dissemination seminar	N4.6m (FMOH) SMOH LGA)	Health Data Bulletin launched and disseminated.
4.	Dissemination of State/LGAs Health Bulletin.	4 <sup>th</sup> Quarter of every year	SMOH LGA	Funds for meeting, State/LGAs dissemination seminar	N4.6m (SMOH) LGA)	Health Data Bulletin launched and disseminated.

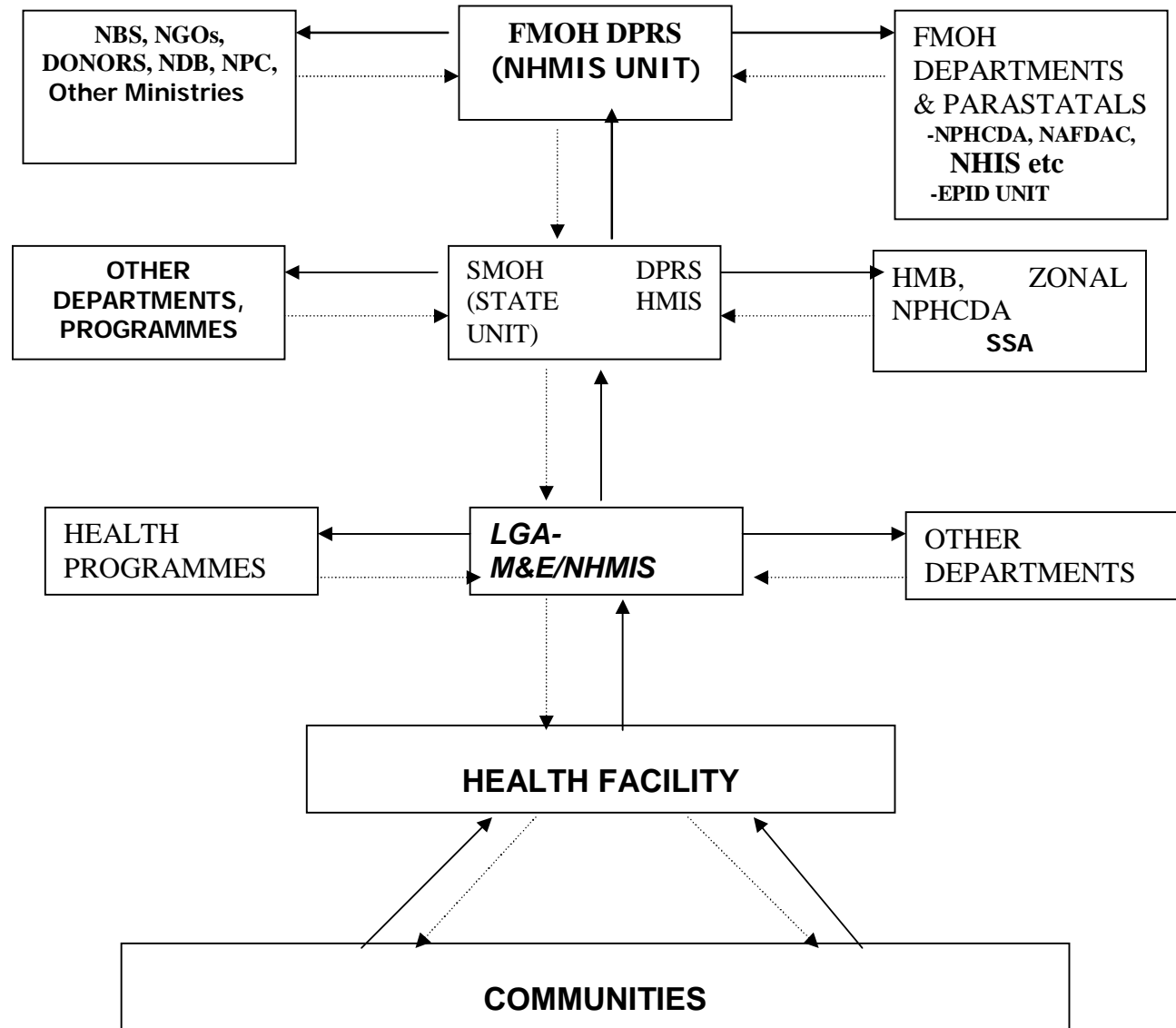
**APPENDIX II**

**INFORMATION FLOWCHART**

RESPONSIBLE OFFICER



**APPENDIX III: NHMIS: EXPANDED OPERATIONAL ORGANOGRAM**



## **APPENDIX IV**

### **NATIONAL HEALTH STATUS & PERFORMANCE INDICATORS**

<b>S/N</b>	<b>INDICATORS</b>	<b>MEASURE/ DETERMINATION</b>	<b>SOURCES</b>
<b>COMMUNITY/VILLAGE LEVEL</b>			
1	No. of trained, kitted and functional VHWs in the community	No. of trained, kitted and functional VHWs in the community	Routine NHMIS Data
2a	No. of TBAs in the community	No. of TBAs in the community	Routine NHMIS Data
2b	No. of trained, kitted and functional TBAs in the community	No. of trained, kitted & functional TBAs in the community	
3	No. of live births	No. of live births	Routine NHMIS Data
4	No. of still births	No. of still births	Routine NHMIS Data
5	No. of maternal deaths	No. of maternal deaths	Routine NHMIS Data
6	No. of referral	No. of referral	Routine NHMIS Data
7	No. of patients attended by VHWs	No. of patients attended by VHWs	Routine NHMIS Data
8	No. of women attended by TBAs	No. of women attended by TBAs	Routine NHMIS Data
9	No. of clients that received family planning services	No. of clients that received family planning services	Routine NHMIS Data
10	No. of cases of diseases seen e.g. malaria (specify)	No. of cases seen e.g. malaria (specify)	Routine NHMIS Data
11	No. of deaths (specify age and sex)	No. of deaths (specify age and sex)	Routine NHMIS Data

S/N	INDICATORS	MEASURE/ DETERMINATION	SOURCES
<b>FACILITY/WARD LEVEL</b>			
1	Maternal mortality rate,	$\frac{\text{No. of deaths of WRA (15-49yrs) resulting from pregnancy related causes, child birth and post-natal in a year}}{\text{Total No. of live births in the same period}} \times 100,000$	Survey
2	Infant Mortality Rate	$\frac{\text{No. of U-1 year deaths in a year}}{\text{Total No. of live births during the same period}} \times 1000$	Survey
3	Under-5 Mortality Rate	$\frac{\text{No. of U-5 years deaths in a year}}{\text{Total No. of U-5 children in the population in the same period}} \times 1000$	Survey
4	Crude Birth Rate	$\frac{\text{No. of Births in a year}}{\text{Mid year population}} \times 1000$	Survey
5	Crude Death Rate	$\frac{\text{No. of deaths in a year}}{\text{Mid year population}} \times 1000$	Survey
6	No. of WRA (15-49 yrs) using modern contraceptives	No. of WRA (15-49 yrs) using modern contraceptives in the Health facility	Routine NHMIS Data
7	No. of deliveries by trained TBAs	No. of deliveries by trained TBAs	Routine NHMIS Data
8	No. of ANC clients that received 3 doses of IPT.	No. of ANC clients that received 3 doses of IPT	Routine NHMIS Data
9	% of newborn with low birth weight	$\frac{\text{No. of new born with weight lower than 2.5kg}}{\text{Total No. of new born}} \times 100$	Routine NHMIS Data
10	DPT3 coverage	$\frac{\text{No. of infants that received DPT3 vaccinations}}{\text{No of infants that received DPT 1 vaccination}}$	Routine NHMIS Data
11	Immunization coverage	$\frac{\text{No. of children less than 12 months fully Immunised}}{\text{Total No. of children less than 12 months}} \times 100$	Survey
12	% of women that received ante-natal care in a year	$\frac{\text{No. of women that received at least 4 ante-natal care contacts in a year}}{\text{Total No. of deliveries in the same period}} \times 100$	Survey
13	No. of children 0-6 months – exclusively breast-fed	No. of children 0-6 months exclusively breast fed	Routine NHMIS Data

S/N	INDICATORS	MEASURE/ DETERMINATION	SOURCES
14	No. of deliveries in the health facility	No. of deliveries in the health facility	Routine NHMIS Data
15	% of children aged 0-59 months weighing below the lower line (3 <sup>rd</sup> percentile) on the child's health card	$\frac{\text{No. of children aged 0-59 months weighing below the lower line}}{\text{Total No. children aged 0-59 months weighed}} \times 100$	Routine NHMIS Data
16	No. of children( 6-59 months) given Vitamin A	No. of children (6-59 months) that received Vitamin A in the health facility	Routine NHMIS Data
17	Incidence of each of the notifiable Communicable diseases (specify)	$\frac{\text{No. of new cases of notifiable Communicable diseases (specify) in a target group in a year}}{\text{Total population of target group in the same period}} \times 1000$	Survey
18	Incidence of each of the notifiable Non Communicable diseases (specify)	$\frac{\text{No. of new cases of notifiable Non Communicable diseases (specify) in a target group in a year}}{\text{Total population of target group in the same period}} \times 1000$	Survey
19	Prevalence of notifiable Communicable diseases (specify)	$\frac{\text{No. of new \& old cases of notifiable Communicable diseases in a target group in a year}}{\text{Total population of target group in the same year}} \times 1000$	Survey
20	Prevalence of notifiable Non Communicable diseases (specify)	$\frac{\text{No. of new \& old cases of notifiable Non Communicable diseases in a target group in a year}}{\text{Total population of target group in the same year}} \times 1000$	Survey
21	% of HF in the ward providing condoms to clients	$\frac{\text{No. of HF in the ward providing condoms to clients}}{\text{Total No. of HF in the ward}} \times 100$	Routine NHMIS Data
22	% of health facilities in the ward providing minimum health services package as defined in HSR document	$\frac{\text{No. of health facilities in the ward providing minimum health services package as defined in the HSR document}}{\text{Total No. of health facilities in the ward}} \times 100$	Routine NHMIS Data
23	Incidence of malaria in the U-5 children	$\frac{\text{No. of new cases of malaria in Children 0-59 months in a year}}{\text{Total population of children 0-59 months in the same period}} \times 1000$	Survey
24	Incidence of malaria in pregnant women	$\frac{\text{No. of new cases of malaria in Pregnant women in a year}}{\text{Total population of pregnant women in the same period}} \times 1000$	Survey
25	% of deaths due to notifiable Non communicable diseases (specify)	$\frac{\text{No. of deaths due to notifiable Non communicable diseases (specify) in a year}}{\text{Total No. of deaths in the health facility in the same year}} \times 100$	Routine NHMIS Data
26	% of deaths due to notifiable communicable diseases (specify)	$\frac{\text{No. of deaths due to notifiable communicable diseases (specify) in a year}}{\text{Total No. of deaths in the health facility in the same year}} \times 100$	Routine NHMIS Data

S/N	INDICATORS	MEASURE/ DETERMINATION	SOURCES
27	No. of deaths due to vaccine preventable diseases (VPD) (specify)	No. of deaths due to vaccine preventable diseases at the facility (specify)	Routine NHMIS Data
28	No. of health facilities not experiencing stock-out of essential drugs in the ward in the last 3 months	No. of health facilities that did not experience stock-out of essential drugs in the last 3 months	Routine NHMIS Data
<b>LGA LEVEL</b>			
1	Maternal mortality rate,	$\frac{\text{No. of deaths of WRA resulting from pregnancy related causes, child birth and post-natal in a year}}{\text{Total No. of live births in the same period}} \times 100,000$	Survey
2	Infant Mortality Rate	$\frac{\text{No. of U- 1 year death in a year}}{\text{Total No. of live births during the same period}} \times 1000$	Survey
3	Under-5 Mortality Rate	$\frac{\text{No. of U-5 year deaths in a year}}{\text{Total No. of U-5 children in the population in the same year}} \times 1000$	Survey
4	Crude Birth Rate	$\frac{\text{No. of Births in a year}}{\text{Mid year population}} \times 1000$	Survey
5	Crude Death Rate	$\frac{\text{No. of deaths in a year}}{\text{Mid year population}} \times 1000$	Survey
6	Contraceptive Prevalence Rate	$\frac{\text{No. of WRA (15-49 yrs) using modern contraceptives in a year}}{\text{Total No. of WRA (15-49yrs) in the same year}} \times 100$	Survey
7	% of new born with low birth weight	$\frac{\text{No. of new born with birth weight below 2.5kg}}{\text{Total No. of new borns at the LGA}} \times 100$	Survey
8	DPT3 Coverage	$\frac{\text{No. of infants that received DPT3}}{\text{No. of infants that received DPT 1}}$	Survey
9	Immunization Coverage	$\frac{\text{No. of children less than 12 months fully Immunised}}{\text{Total No. of children less than 12 months}} \times 100$	Survey
10	% of health facilities that provide minimum health package	$\frac{\text{No. of health facilities providing minimum health package}}{\text{Total No. of health facilities}} \times 100$	Routine NHMIS Data
11	No. of deliveries in the LGA	No. of deliveries in the LGA	Survey
12	% of deliveries by trained TBAs in the LGA	$\frac{\text{No. of deliveries attended to by trained TBAs in the LGA}}{\text{Total No. of deliveries in the LGA}} \times 100$	Routine NHMIS data
13	% of health facilities providing clients with condoms in the LGA	$\frac{\text{No. of health facilities providing clients with condoms in the LGA}}{\text{Total No. of health facilities in the LGA}} \times 100$	Routine NHMIS data

S/N	INDICATORS	MEASURE/ DETERMINATION	SOURCES
14	% of health facilities providing services on STIs, HIV/AIDS	$\frac{\text{No. of health facilities providing services on STIs, HIV/AIDS}}{\text{Total No. of health facilities}} \times 100$	Routine NHMIS data
15	% of health facilities providing family planning services	$\frac{\text{No. of health facilities providing family planning services}}{\text{Total No. of health facilities}} \times 100$	Routine NHMIS data
16	% of health facilities with referral protocol	$\frac{\text{No. of health facilities with referral protocol}}{\text{Total No. of health facilities}} \times 100$	Routine NHMIS data
17	% of pregnant women that received ante-natal care (ANC) in a year	$\frac{\text{No. of women that received ante-natal care (ANC) in a year}}{\text{Total No. of pregnant women in the same period}} \times 100$	Survey
18	% of infants 0-6 months exclusively breast-fed	$\frac{\text{No. of infants 0-6 months exclusively breast-fed}}{\text{Total No. of infants 0-6 months}} \times 100$	Routine NHMIS data
19	Incidence of each of the notifiable Non communicable diseases (specify)	$\frac{\text{No. of new cases of notifiable Non communicable diseases (specify) in a target group in a year}}{\text{Total population of target group in the same year}} \times 1000$	Routine NHMIS data & Survey
20	Incidence of each of the notifiable communicable diseases (specify)	$\frac{\text{No. of new cases of notifiable communicable diseases (specify) in a target group in a year}}{\text{Total population of target group in the same year}} \times 1000$	Routine NHMIS data & Survey
21	Prevalence of notifiable Non communicable diseases (specify)	$\frac{\text{No. of new \& old cases of notifiable Non communicable diseases in a target group in a year}}{\text{Total population of target group}} \times 1000$	Routine NHMIS data & Survey
22	Prevalence of notifiable Communicable diseases (specify)	$\frac{\text{No. of new \& old cases of notifiable Communicable diseases in a target group in a year}}{\text{Total population of target group}} \times 1000$	Routine NHMIS data & Survey
23	% of establishments providing occupational health services	$\frac{\text{No. of establishments with 10 or more employees providing occupational health services}}{\text{Total No. of establishments with 10 or more employees}} \times 100$	Routine NHMIS data
24	% of private health providers participating in the NHMIS	$\frac{\text{No. of private health providers participating in the NHMIS}}{\text{Total No. of private health providers}} \times 100$	Routine NHMIS data
25	% of deaths due to notifiable Communicable diseases (specify)	$\frac{\text{No. of deaths due to notifiable Communicable diseases (specify) in a year}}{\text{Total No. of deaths in the same period}} \times 100$	Routine NHMIS data
26	% of deaths due to notifiable Non Communicable diseases (specify)	$\frac{\text{No. of deaths due to notifiable Non communicable diseases (specify) in a year}}{\text{Total No. of deaths in the same year}} \times 100$	Routine NHMIS data
27	% of deaths due to vaccine preventable diseases (VPD) (specify)	$\frac{\text{No. of deaths due to vaccine preventable diseases in a year (specify)}}{\text{Total No. of deaths in the same year}} \times 100$	Routine NHMIS data

S/N	INDICATORS	MEASURE/ DETERMINATION	SOURCES
28	% of health facilities not experiencing stock-out of essential drugs in the last 3 months	$\frac{\text{No. of health facilities that did not experience stock-out of essential drugs in the last three months}}{\text{Total No. of health facilities in the LGA}} \times 100$	Routine NHMIS data
<b>STATE LEVEL</b>			
1	Immunization coverage rate	$\frac{\text{No. of children less than 12 months fully Immunised in a year}}{\text{Total No. of children less than 12 months in the same period}} \times 100$	Survey
2	Infant Mortality Rate	$\frac{\text{No. of U-1 year deaths in a year}}{\text{Total No. of live births during the same period}} \times 1000$	Survey
3	Maternal mortality rate	$\frac{\text{No. of deaths of WRA (15-49 yrs) resulting from pregnancy related causes, child birth and post-natal in a year}}{\text{Total No. of live births in the same period}} \times 100,000$	Survey
4	Under-5 Mortality Rate	$\frac{\text{No. of U-5 year deaths in a year}}{\text{Total No. of U-5 in the population in the same year}} \times 1000$	Survey
5	Crude Birth Rate	$\frac{\text{No. of Births in a year}}{\text{Mid year population}} \times 1000$	Survey
6	Crude Death Rate	$\frac{\text{No. of deaths in a year}}{\text{Mid year population}} \times 1000$	Survey
7	Contraceptive Prevalence Rate	$\frac{\text{No. of WRA (15-49 yrs) using modern contraceptives in a year}}{\text{Total No. of WRA (15-49yrs) in the same year}} \times 100$	Survey
8	% of new born with low birth weight	$\frac{\text{No. of new borns with birth weight below 2.5kg}}{\text{Total No. of new borns}} \times 100$	Routine NHMIS data
9	DPT3 coverage	$\frac{\text{No. of infants that received DPT3}}{\text{No. of infants that received DPT 1}}$	Routine NHMIS data
10	% of pregnant women that received ante-natal care (ANC) in a year	$\frac{\text{No. of women that received ante-natal care (ANC) in a year}}{\text{Total No. of pregnant women in the same period}} \times 100$	Survey
11	% of infants 0-6 months exclusively breast fed	$\frac{\text{No. of infants 0-6 months exclusively breast fed}}{\text{Total No. of infants 0-6 months}} \times 100$	Routine NHMIS data
12	% of deaths due to notifiable Non Communicable Diseases (specify)	$\frac{\text{No. of deaths due to notifiable Non Communicable diseases (specify) in a year}}{\text{Total No. of deaths in the same year}} \times 100$	Routine NHMIS data
13	% of deaths due to notifiable Communicable Diseases (specify)	$\frac{\text{No. of deaths due to notifiable Communicable diseases (specify) in a year}}{\text{Total No. of deaths in the same period}} \times 100$	Routine NHMIS data
14	% of deaths due to vaccine preventable diseases (VPD) (specify)	$\frac{\text{No. of deaths due to vaccine preventable diseases in a year (specify)}}{\text{Total No. of deaths in the same period}} \times 100$	Routine NHMIS data

S/N	INDICATORS	MEASURE/ DETERMINATION	SOURCES
15	Incidence of each of the notifiable communicable diseases (specify)	$\frac{\text{No. of new cases of notifiable communicable diseases in a year (specify)}}{\text{Total population of target group in the same period}} \times 1000$	Routine NHMIS Data; Survey
16	Incidence of each of the notifiable Non communicable diseases (specify)	$\frac{\text{No. of new cases of notifiable Non communicable diseases in a year (specify)}}{\text{Total population of target group in the same period}} \times 1000$	NHMIS Data; Survey
17	Prevalence of notifiable communicable diseases	$\frac{\text{No. of new \& old cases of notifiable communicable diseases in a year}}{\text{Total population of target group in the same year}} \times 1000$	Routine NHMIS Data; Survey
18	Prevalence of notifiable Non communicable diseases	$\frac{\text{No. of new \& old cases of notifiable Non communicable diseases in a year}}{\text{Total population of target group in the same year}} \times 1000$	Routine NHMIS Data; Survey
19	% of establishments providing occupational health services	$\frac{\text{No. of establishments with 10 or more employees providing occupational health services}}{\text{Total No. of establishments with 10 or more employees}} \times 100$	Routine NHMIS data
20	% of private health providers participating in the NHMIS	$\frac{\text{No. of private health providers participating in the NHMIS}}{\text{Total No. of private health providers}} \times 100$	Routine NHMIS data
21	No. Secondary Health facilities (Public & Private) providing voluntary counselling and testing for HIV/AIDS	No. of Secondary Health facilities (Public & Private) providing voluntary counselling and testing for HIV/AIDS	Routine NHMIS Data
22	No. of Secondary Health facilities (Public & Private) providing Antiretroviral (ARV) therapy	No. of Secondary Health facilities (Public & Private) providing Antiretroviral (ARV) therapy	Routine NHMIS data
23	No. of Secondary Health facilities (Public & Private) providing blood screening service	No. of Secondary Health facilities (Public & Private) providing blood screening service	Routine NHMIS data
24	No. of Secondary Health facilities (Public & Private) not experiencing stock-out of essential drugs in the last 3 months	No. of Secondary Health facilities (Public & Private) not experiencing stock-out of essential drugs in the last 3 months	Routine NHMIS data
<b>FEDERAL LEVEL</b>			
1	Infant Mortality Rate	$\frac{\text{No. of U-1 year deaths in a year}}{\text{Total No. of live births during the same period}} \times 1000$	Survey
2	Maternal Mortality Rate,	$\frac{\text{No. of deaths of WRA resulting from pregnancy related, child birth and post-natal causes in a year}}{\text{Total No. of live births in the same period}} \times 100,000$	Survey
3	Under-5 Mortality Rate	$\frac{\text{No. of U-5 year deaths in a year}}{\text{Total No. of U-5 in the population in the same year}} \times 1000$	Survey
4	Crude Birth Rate	$\frac{\text{No. of Births registered in a year}}{\text{Mid year population}} \times 1000$	Survey

S/N	INDICATORS	MEASURE/ DETERMINATION	SOURCES
5	Crude Death Rate	$\frac{\text{No. of deaths registered in a year}}{\text{Mid year population}} \times 1000$	Survey
6	Contraceptive Prevalence Rate	$\frac{\text{No. of WRA (15-49 yrs) using modern contraceptives in a year}}{\text{Total No. of WRA (15-49yrs) in the same year}} \times 100$	Survey
7	% of new born with low birth weight	$\frac{\text{No. of new born with birth weight below 2.5kg}}{\text{Total No. of new borns}} \times 100$	Routine NHMIS Data
8.	DPT3 coverage	$\frac{\text{No. of infants that received DPT3}}{\text{No. of infants that received DPT 1}}$	Routine NHMIS data
9	Immunization coverage rate;	$\frac{\text{No. of children less than 12 months fully Immunised in a year}}{\text{Total No. of children less than 12 months in the same period}} \times 100$	Survey
10	% of pregnant women that received ante-natal care (ANC) in a year	$\frac{\text{No. of women that received ante-natal care (ANC) in a year}}{\text{Total No. of pregnant women in the same period}} \times 100$	Routine NHMIS Data
11	% of infant 0-6 months exclusively breast fed	$\frac{\text{No. of infant 0-6 months exclusively breast fed}}{\text{Total No. of infants 0-6 months}} \times 100$	Routine NHMIS Data
12	No. of deliveries in the States	No. of deliveries in the state	Routine NHMIS Data
13	% of deliveries by trained TBAs	$\frac{\text{No. of deliveries by trained TBAs in year}}{\text{Total No. of deliveries in the same period}} \times 100$	Routine NHMIS Data
14	% of deaths due to notifiable Non Communicable Diseases	$\frac{\text{No. of deaths due to notifiable Non Communicable Diseases in a year}}{\text{Total No. of deaths in the same year}} \times 100$	Routine NHMIS Data; Survey
15	% of deaths due to notifiable Communicable Diseases	$\frac{\text{No. of deaths due to notifiable Communicable Diseases in a year}}{\text{Total No. of deaths in the same year}} \times 100$	Routine NHMIS Data; Survey
16	% of deaths due to vaccine preventable diseases (VPD)(specify)	$\frac{\text{No. of deaths due to vaccine preventable diseases in a year (specify)}}{\text{Total No. of deaths in the same year}} \times 100$	Routine NHMIS Data; Survey
17	Incidence of each of notifiable Non communicable diseases (specify)	$\frac{\text{No. of new cases of notifiable Non communicable diseases in a year (specify)}}{\text{Total population of target group in a year}} \times 1000$	Routine NHMIS Data; Survey
18	Incidence of each of notifiable communicable diseases (specify)	$\frac{\text{No. of new cases of notifiable communicable diseases in a year (specify)}}{\text{Total population of target group in a year}} \times 1000$	Routine NHMIS Data; Survey
20	Prevalence of notifiable communicable diseases	$\frac{\text{No. of new & old cases of notifiable communicable diseases (specify) in a year}}{\text{Total population of target group in the same year}} \times 100$	Routine NHMIS Data; Survey

S/N	INDICATORS	MEASURE/ DETERMINATION	SOURCES
21	% of establishments providing occupational health services	No. of establishments with 10 or more <u>employees who provide occupational health services</u> X 100 Total No. of establishments with 10 or more employees	Routine NHMIS Data
22	% of private health providers participating in the NHMIS	<u>No. of private health providers in the country participating in the NHMIS</u> X 100 Total No. of private health providers in the country	Routine NHMIS Data
23	% of Secondary Health facilities (Public & Private) providing voluntary counseling & therapy (VCT)	No. of Secondary Health facilities <u>(Public &amp; Private) providing voluntary counseling &amp; therapy (VCT)</u> x 100 Total No. of secondary health facilities in the country	Routine NHMIS Data
24	% of Secondary Health facilities (Public & Private) providing Antiretroviral (ARV) therapy	No. of Secondary Health facilities <u>(Public &amp; Private) providing Antiretroviral (ARV) therapy</u> x 100 Total No. of secondary health facilities in the country	Routine NHMIS Data
25	No. of Secondary Health facilities (Public & Private) providing blood screening service	No. of Secondary Health facilities <u>(Public &amp; Private) providing blood screening service</u> x 100 Total No. of secondary health facilities in the country	Routine NHMIS Data
26	No. of Secondary Health facilities (Public & Private) not experiencing stock-out of essential drugs in the last 3 months	No. of Secondary Health facilities (Public & Private) <u>not experiencing stock-out of essential drugs in the last 3 months</u> x 100 Total No. of secondary health facilities in the country	Routine NHMIS Data

## APPENDIX 5: NATIONAL HEALTH OBJECTIVES AND INDICATORS

A number of national health objectives and indicators have been put together for comprehensive monitoring and evaluation of the national health care system. The objectives and indicators were selected based on available resources, relevance to national health policy and ease of data collection.

S/N	PRIORITY AREA	PRIORITY AREA IMPLEMENTING AGENCY	MEASURABLE OBJECTIVES/TARGETS	NATIONAL INDICATORS	CALCULATION OF INDICATORS	SOURCE OF DATA (DATA SYSTEM)
1.	Political Commitment to Health Policy at all levels (assessed in terms of resource allocation, equity, organization framework and involvement of community).	Federal, State & LGAs	<p>1.1 Increase in budgetary allocation to health (by at least 10% by the year 2000).</p> <p>1.2. Increase in annual per capita (national) expenditures on health.</p> <p>1.3. Increase in health budget allocation to PHC.</p> <p>1.4. Increase in actual expenditures of annual budget on health.</p> <p>1.5. Increase in the number of LGAs with health committees.</p>	<p>Proportion of annual budget allocation to health</p> <p>Per capital expenditure on health at national level.</p> <p>Proportion of health budget allocation to PHC.</p> <p>Percent of budgetary allocation to health expended</p> <p>Proportion of LGAs with health committees.</p>	<p><b>Allocation for health</b> x 100 Total annual budget</p> <p>Actual national expenditure on health _____ x 100 Total population</p> <p><b>PHC Budget</b> x 100 Total health budget</p> <p>Actual FMOH expenditures on health _____ x 100 Actual annual FMOH budget on health</p> <p>Number of LGAs with health committees _____ x 100 Total No. of LGAs in the country</p>	<p>Federal Ministry of Finance, FMOH, SMOH, LGA</p> <p>FMF, FMOH, SMOH, LGA</p> <p>FMOH</p> <p>FMF, FMOH, SMOH, LGA</p> <p>FMOH, NPHCDA, Survey</p>
2		SMOH	<b>2.1 Increase the annual State budget on health to at least 10% by the year 2000</b>	<p>a. Percent of annual State budget allocated to health</p> <p>b. Percent of health budget expended</p> <p>c. Per capita allocation on health at the state level</p> <p><b>d. Proportion of State health budget allocated to PHC</b></p>	<p>a. State allocation on health _____ x 100 Annual State budget</p> <p>b. Actual State health expenditures _____ X 100 Annual State health budget</p> <p>c. State budget on health _____ X 100 Total State health budget</p> <p>d. State budget on PHC _____ X 100 Total State health budget</p>	<p>SMOH</p> <p>SMOH</p> <p>SMOH</p> <p>SMOH</p>

S/N	PRIORITY AREA	PRIORITY AREA IMPLEMENTING AGENCY	MEASURABLE OBJECTIVES/TARGETS	NATIONAL INDICATORS	CALCULATION OF INDICATORS	SOURCE OF DATA (DATA SYSTEM)
			2.2. Increase in the number of LGAs in the State with health committees.	Percent of LGAs with health committees	Total no. of LGAs in the state with health committees $\times 100$ Total No. of LGAs in the state	SMOH, NPHCDA
3		LGA	3.1. Increase the annual LGA budget on health to at least 30% by the year 2010.	a. Percent of LGA budget allocated to health  b. Actual expenditures of LGA budget on health	a. LGA allocation to health $\times 100$ Annual LGA budget  b. Actual LGA budget on health $\times 100$ Annual LGA budget	LGA, NPHCDA, Survey  <b>LGA, NPHCDA, Survey</b>
			3.2. Increase in the per capita income on health	Per capita health expenditure at the LGA	Actual LGA expenditure on health $\times 100$ Total LGA proportion	LGA, NPHCDA, NPC, Survey
			3.3. Increase in the number of PHC numbered houses in the LGA	Proportion of houses with PHC number in the LGA	Number of PHC numbered houses in the LGA $\times 100$ Total No. of houses in the LGA	LG Health Dept, LG Works Dept, Survey

### HEALTH ACCESS/UTILISATION INDICATORS

1.	Physical Accessibility to Health Service (PHC/Referral System)	MOH	1.1. To increase the number of facilities to improve the proportion of population having access to health facilities.  1.2. To increase the number of health workers in the country.  1.3. To increase the level of two-way referral system in support of PHC.	Proportion of population living within 5km distance of a health facility  Proportion of population seen by trained health workers  Proportion of referrals recorded within the health system	Number of population living within 5km distance $\times 100$ Total population  Number of population seen by trained health workers $\times 100$ Total Population.  To No. of attendances $\times 100$ Total No. of cases needing referrals	Health Survey, NPC  PHC M&E, LGA(PRS), Health facility  Health facility
2.	Provision of out-patient care for common and specific conditions at all levels of health care delivery system.	FMOH	2.1. To achieve a minimum of three attendances for each person per year, including out-patient and hospital visits.	Attendance per year per 1000 population	Number of attendances $\times 1000$ Total population	Health facility
3.	Provision of accessible in-patient and referral services to all those who require them.	FMOH	3.1. To increase the number of in-patient beds from the present 2 per 1000 to at least 4 per 1000	Ration of hospital beds per 1000 population per year.	Total No. of beds available for in-patient care $\times 1000$ Total population	Hospitals

S/N	PRIORITY AREA	PRIORITY AREA IMPLEMENTING AGENCY	MEASURABLE OBJECTIVES/TARGETS	NATIONAL INDICATORS	CALCULATION OF INDICATORS	SOURCE OF DATA (DATA SYSTEM)
			(by the year 2010) 3.2. To increase the number of doctors from the present 2.5 per 10,000 population to 4 doctors per 10,000 population by the year 2010 (with at least 2 doctors per LGA in the country).	a. Ration of doctors per 10,000 population. b. Percentage of LGAs having more than 2 doctors practicing within the LGA	a. $\frac{\text{Number of doctors} \times 1000}{\text{Total population}}$ b. $\frac{\text{Number of LGAs with two or more practicing physicians} \times 100}{\text{Total No. of LGAs}}$	Hospitals Hospitals
4.	Health Insurance coverage of employees in the formal sector	FMOH (Health Insurance Scheme).	4.1. To provide health insurance cover to all employees	Percentage of employees covered in the formal sector by Health Insurance Scheme	$\frac{\text{Number of employees covered in the formal sector}}{\text{Total No. of employees}} \times 100$	Health Insurance Scheme
5.	Dental and Oral Health	FMOH	5.1. To increase the number of health facilities in the LGA offering dental/oral health services	Percentage of health facilities in the LGA equipped to offer dental/oral health services	$\frac{\text{Number of health facilities in LGA equipped to provide dental/oral health services}}{\text{Total no of health facilities in LGA}} \times 100$	Survey, PHC M&E
6.	Mental Health	FMOH	6.1. To increase the number of health facilities in the LGA offering Mental health services	Percentage of health facilities in the LGA equipped to offer Mental health services	$\frac{\text{Number of health facilities in LGA equipped to provide Mental health services}}{\text{Total no of health facilities in LGA}} \times 100$	Survey, PHC M&E
7.	School Health Services	FMOH, FME	7.1. To increase the number of schools with health services	Percentage of schools in LGAs with health services.	$\frac{\text{Number of facilities that provide laboratory services}}{\text{Total No. of facilities}} \times 100$	Survey, PHC M&E
8.	Laboratory Services	FMOH, SMOH, NGOs, Private Sector	8.1. To increase the number of health facilities that provide essential laboratory services. 8.2. To increase the number of trained laboratory personnel. 8.3. To ensure the utilization of laboratory services. 8.4. To ensure that all laboratories conforms to a national Quality Assurance Scheme.	Percentage of health facilities by states/LGAs the provide essential laboratory services. Percentage of trained laboratory workers Proportion of patients sent for laboratory investigation Proportion of laboratories participating in National Quality Assurance Scheme.	$\frac{\text{Number of facilities that provide laboratory services}}{\text{Total No. of facilities}} \times 100$ $\frac{\text{Number of trained laboratory workers}}{\text{Total No. of laboratory staff}} \times 100$ $\frac{\text{Number of laboratory requests}}{\text{Total no. of hospital/clinic consultants}} \times 100$ $\frac{\text{Number of laboratories in scheme}}{\text{Total No. of registered laboratories}} \times 100$	Survey NHMIS Forms

S/N	PRIORITY AREA	PRIORITY AREA IMPLEMENTING AGENCY	MEASURABLE OBJECTIVES/TARGETS	NATIONAL INDICATORS	CALCULATION OF INDICATORS	SOURCE OF DATA (DATA SYSTEM)
			8.5. to increase the number of health facilities with major laboratory equipment and reagents.	Proportion of health facilities with major laboratory equipment and reagents	Number of health facilities with major laboratory equipment and reagents $\frac{\quad}{\text{Total No. of health facilities}}$ x 100	
9.	Radiology Services	FMOHs, SMOHs, LGAs, NGOs	To increase the numbers of health facilities that provide radiological services.  9.2. To increase the number of trained radiology personnel  9.3. To ensure the utilization of radiology services  9.4. To ensure that the laboratories conform to a National Quality Assurance Scheme	Percentage of health facilities by state/LGAs that provide radiological services  Percentage of trained radiology personnel  Proportion of patients sent for radiological services  Proportion of laboratories participating in National Quality Assurance Scheme	Number of facilities that provide radiological equipment and reagents $\frac{\quad}{\text{Total No. of facilities}}$ x 100  Number of trained radiology personnel $\frac{\quad}{\text{Total No. of Laboratory staff}}$ x 100  Number of laboratory request $\frac{\quad}{\text{Total No. of hospital/clinic consultants.}}$ x 100  Number of laboratories in scheme $\frac{\quad}{\text{Total No. of registered laboratories}}$ x 100	Survey  NHMIS Forms
10.	Pharmacy Services	FMOH, SMOH, NGOs, Private Sector	To increase the number of facilities that participate in essential drug programme	Percentage of health facilities that participated in essential drug programme.	Number of health facilities per state/LGA that participate in EDP $\frac{\quad}{\text{Total number of facilities}}$ X 100	Survey  NHMIS forms
11.	District Minimum Health Services Package	FMOH, SMOH, NGOs	To increase the proportion of Primary health care facilities meeting the minimum health services	Percentage of PHC facilities in states/LGA providing minimum health services package.	Number of PHC facilities in State/LGAs providing minimum health services package $\frac{\quad}{\text{Total No. of facilities in States/LGAs}}$ x 100	Survey  NHMIS forms
12.	Public Private Sector Health Care Services	FMOH, SMOH, NGOs, Private Sector	To set up an efficient and dynamic public/private sector mix	Percentage of health care services provided by private sector.	<b>Number of private</b> sector health facilities $\frac{\quad}{\text{Total no. of facilities}}$ x 100	Survey  NHMIS forms
13.	Traditional and Medical Practices	FMOH, SMOH	To establish appropriate legislation and mechanism for standardization and control of traditional medical practices	Percentage of states and LGAs with edicts regulating traditional medical practices.	Number of LGAs/State with traditional medicine boards $\frac{\quad}{\text{Total No. of LGAs/state}}$ X 100	Survey  NHMIS forms
14.	Health manpower Management	FMOH, SMOH	To institutionalize re-certificate and continuing education programmes	Percentage of health professional recertified yearly by the relevant professional bodies	Number of professional recertified $\frac{\quad}{\text{Total No. of registered professionals}}$ x 100	Survey  NHMIS forms

S/N	PRIORITY AREA	PRIORITY AREA IMPLEMENTING AGENCY	MEASURABLE OBJECTIVES/TARGETS	NATIONAL INDICATORS	CALCULATION OF INDICATORS	SOURCE OF DATA (DATA SYSTEM)
<b>MONITORING AND EVALUATION OF INFORMATION SYSTEMS</b>						
1.	National Health Indicators	DPRS, (FMOH)	1.1. To increase regular use of national health indicators at all levels of service delivery	Proportion of LGAs and states developing health plans based on HMIS	Number of LGAs/States <u>with health plans</u> x 100 Total No. of LGAs/States	NHMIS
2.	Immediate Notifiable Disease	FMOH (DPRS, PHC&DC)	2.1. To enhance immediate notification of suspected epidemic outbreak.  2.2 To install an electronic voice/data communication network in all states of facilitate emergency preparedness and response mechanism	Proportion of suspected disease outbreaks promptly  Proportion of states with electronic/voice/data communication network (EVDCN) system	Number of disease out-breaks <u>promptly notified</u> x 100 Total No. of disease outbreaks notified for a given year  Number of states with <u>EVDCN</u> x100 Total No. of states	NHMIS
3.	Co-ordination and Integration of HMIS	FMOH (DPRS) NPHCDA STATES LGAS	3.1. To facilitate the development of HMIS units at State and LGAs levels and to strengthen the co-ordination of M&E systems by NHMIS strategic plan of action.  3.2. to improve the capacity building activities and systematic training of M&E personnel and health managers disease surveillance and M&E systems  3.3. To improve supervision of HMIS at state, LGA and health facility level.  3.4. To increase the participation of private health providers in the NHMIS.  3.5. To develop appropriate operational manual for the NHMIS at all levels.	Percentage of states with HMIS/ M&E plan.  Percentage of LGA with HMIS/ M&E plan.  Percentage of required personnel trained in the NHMIS processes  Percentage of States and LGAs implementing HMIS quality assurance (QA) supervision.  Percentage of private health providers participating in the NHMIS  Percentage of state and LGAs with NHMIS operational manuals.	Number of states <u>with HMIS plan</u> x 100 Total No. of states  Number of LGAs <u>with HMIS plan</u> x 100 Total No. of LGAs  Number of required <u>personnel trained</u> x 100 Total No. of required personnel.  Number of States/LGAs <u>implementing QA</u> x 100 Total No. of states/LGAs  Number of private providers <u>participating in NHMIS</u> x 100 Total No. of private providers.  Number of states/LGA with NHMIS <u>operational manuals</u> x 100 Total No. of states/LGAs	Survey  Survey  Survey  Survey  Survey

S/N	PRIORITY AREA	PRIORITY AREA IMPLEMENTING AGENCY	MEASURABLE OBJECTIVES/TARGETS	NATIONAL INDICATORS	CALCULATION OF INDICATORS	SOURCE OF DATA (DATA SYSTEM)
<b>SOCIO – ECONOMIC OBJECTIVES AND INDICATORS</b>						
	<b>Education</b> Adult Literacy	NPC, FME, MLP, MWH, MANR	1.1. To increase the proportion of the population that is literate to at least 70% by the year 2010.	Percentage of population literate	Population aged 15 years + by gender who can <u>read and write</u> x 100 Total population 15 years +	<b>NPC, Federal Ministry of Education, Survey.</b>
	Female Education	FME, FMW	1.2. To increase the proportion of females enrolled in schools.	Female-male enrolment ratio	Number of females enrolled <u>in formal schools</u> x 100 Total No. of school enrolments	FME Statistics
	<b>Population Growth</b>	NDC, FME, FMW, FMOH	1.3. To reduce the population growth rate.	Annual population growth rate	Total population in a given <u>year</u> x 100 Total population in preceding year	NPC, NBS
	<b>Employment</b>	FMLP, FMOH	1.4. To increase the level of employment	Unemployment Rate	Total No. of <u>employed</u> x 100 Total No. of people within the productive age group.	NPC, Ministry of Labour and Productivity, NBS
	<b>Housing</b>	FMHousing	1.5. To increase the proportion of Nigerian households with access to adequate housing according to public health standards.	Percentage of population with access to adequate housing.	Number of households with <u>adequate housing</u> x 100 Total No. of households	NBS
	<b>Safe Drinking Water Supply</b>	FME <sub>env</sub> , FMOH	1.6. To increase the proportion of households with regular supply of safe drinking water (to at least 80% by the year 2010)	Proportion of households with regular supply of safe drinking water	Number of households with regular <u>supply of safe water</u> x 100 Total No. of households	FMOH, FMWR, Survey
	<b>Food Availability</b>	FM AgRiC	1.7. To increase household food security and nutrition	Proportion of households with food security	Number of households that <u>have food security</u> x 100 Total No. of households	Survey, NBS.

APPENDIX 6

**FEDERAL MINISTRY OF HEALTH AND  
SOCIAL SERVICES**

*OFFICE OF THE HON. MINISTER OF HEALTH*

Federal Secretariat, Phase II,  
P.M.B. 12597, Ikoyi, Lagos.

Telephone: 2693018  
Telefax: 01-684098



Ref. No: ...MH.416

.....5th..March....

**CIRCULAR:**

**FUNDING NATIONAL HEALTH MANAGEMENT  
INFORMATION SYSTEM (NHMIS) &  
THE ESTABLISHMENT OF HEALTH DATA  
CONSULTATIVE COMMITTEE (HDCC)**

TO:-

D-G, Health  
All Commissioners for Health  
Directors, FMOH  
Head of (FMOH) Parastatals  
Chief Executive Secretaries, Hospital Management Boards  
LGA Health Authorities

1). FOR EFFECTIVE MANAGEMENT OF THE HEALTH SERVICES, APPROPRIATE AND RELIABLE DATA NEEDS TO BE SYSTEMATICALLY COLLECTED AND ANALYZED FOR PLANNING, MANAGEMENT AND MONITORING PROGRESS TOWARDS ACHIEVING HEALTH FOR ALL NIGERIANS. GOVERNMENT POLICY REQUIRES THAT A NATIONAL HEALTH MANAGEMENT INFORMATION SYSTEM (NHMIS) SHALL BE ESTABLISHED BY (ALL) THE GOVERNMENTS OF THE FEDERATION. (REF. CHAPTER 8, PAGE 35, NATIONAL HEALTH POLICY & STRATEGY TO ACHIEVE HEALTH FOR ALL NIGERIANS, OCTOBER 1988).

2). EVEN THOUGH IT IS WIDELY RECOGNIZED THAT THE ESTABLISHMENT OF A STRONG AND ADEQUATELY FUNDED NHMIS IS A FIRST STEP TOWARD INFORMED PUBLIC HEALTH ACTION, SIGNIFICANT PROGRESS IS YET TO BE MADE, NATION-WIDE, TO IMPLEMENT THE GOVERNMENT MANDATE TO ESTABLISH A NATIONAL HEALTH INFORMATION SYSTEM.

3). REQUIREMENTS FOR DEVELOPING AND STRENGTHENING THE NATIONAL HEALTH MANAGEMENT INFORMATION SYSTEM PROGRAMME WERE DISCUSSED AT THE 40th MEETING OF THE NATIONAL COUNCIL ON HEALTH IN PORT-HARCOURT IN NOVEMBER 1995.

4). COUNCIL OBSERVED THAT IN ORDER TO EFFECTIVELY ESTABLISH AND IMPLEMENT THE NHMIS PROGRAMME, FEDERAL, STATES AND LOCAL GOVERNMENT AREAS MUST PROVIDE THE REQUIRED INPUTS BY ADEQUATELY BUDGETING FOR NHMIS ACTIVITIES. SPECIFICALLY, GOVERNMENTS AT ALL LEVELS MUST BE PREPARED TO FULFILL THE FOLLOWING OBLIGATIONS AND PRE-REQUISITES THROUGH APPROPRIATE DEPARTMENTS AND UNITS: PROVISION OF OFFICE ACCOMMODATION; ACQUISITION OF OFFICE EQUIPMENT; INSTALLATION OF RELEVANT AND APPROPRIATE TELE-COMMUNICATION LINKS; REGULAR AND ADEQUATE BUDGETARY PROVISION FOR RECURRENT AND CAPITAL EXPENDITURE; COMPUTER SITE AND ENVIRONMENT PREPARATION (AS APPROPRIATE FOR LEVEL OF SERVICE); RECRUITMENT AND TRAINING OF HIS STAFF; AND THE PREPARATION, ADOPTION AND IMPLEMENTATION OF HIS WORK-PLANS.

5). COUNCIL FURTHER OBSERVED THAT THERE IS A NEED TO ENSURE COOPERATION, COLLABORATION AND COORDINATION IN HEALTH INFORMATION SYSTEM, ESPECIALLY IN THE AREA OF HEALTH DATA COLLECTION, FLOW, CUSTODY AND RELEASE OF OFFICIAL HEALTH STATISTICS, BETWEEN THE DEPARTMENTS OF PLANNING, RESEARCH & STATISTICS ON THE ONE HAND AND OTHER HEALTH DATA GENERATING DEPARTMENTS, AGENCIES AND ORGANIZATIONS, INCLUDING INTERNATIONAL HEALTH AGENCIES. FOR THIS REASON, THE FEDERAL MINISTRY OF HEALTH HAS ESTABLISHED A HEALTH DATA CONSULTATIVE COMMITTEE (HDCC) TO ADVISE ON MATTERS RELATING TO HEALTH INFORMATION SYSTEM.

6). COUNCIL HAS APPROVED THAT ALL STATE MINISTRIES OF HEALTH SHALL ESTABLISH A HEALTH DATA CONSULTATIVE COMMITTEE, WITH THE DPRS SERVING AS SECRETARIAT.

THE OBJECTIVES OF THE HDCC ARE:-

- A) TO ENSURE EFFECTIVE ARTICULATION AND COORDINATION OF INPUTS FROM THE VARIOUS DATA SOURCES WITH A VIEW TO PRODUCING RELEVANT, TIMELY, UP-TO-DATE AND UNIFORM HEALTH DATA;
- B) TO FACILITATE AND COORDINATE THE DESIGN OF APPROPRIATE FORMATS FOR HEALTH SURVEYS;
- C) TO STANDARDIZE FORMATS FOR HEALTH DATA RETURNS FROM ALL HEALTH FACILITIES IN THE STATE;
- D) TO PROMOTE INTER-DEPARTMENTAL AND INTER-AGENCY CO-OPERATION AND COLLABORATION IN HEALTH DATA-RELATED MATTERS WITH DUE COGNIZANCE GIVEN TO THE STATUTORY RESPONSIBILITY OF DPRS TO COORDINATE PUBLIC HEALTH DATA AND INFORMATION IN THE STATE;

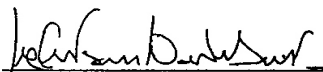
- e) TO PROVIDE INPUTS TO ANNUAL REPORTS OF PROGRESS TOWARDS STATE HEALTH GOALS AND TARGETS;
- f) TO PROVIDE IN-PUT INTO ANNUAL REPORT OF DEVELOPMENT IN STATE STATISTICS THROUGH THE STATE STATISTICAL AGENCY;
- g) TO MAKE RECOMMENDATIONS CONCERNING THE IMPLEMENTATION OF THE STATE HEALTH INFORMATION SYSTEM; AND
- h) TO ADDRESS OTHER CRITICAL ISSUES IN THE STATE HEALTH DATA SYSTEM.

THE STATE HDCC SHALL BE COMPOSED OF THE FOLLOWING:-

- a. D(PRS) - CHAIRMAN
- b. DIRECTOR (PHC & DISEASE CONTROL) MEMBER
- c. CHIEF EXECUTIVE (HMB) "
- d. REPRESENTATIVES OF INTERNATIONAL HEALTH AGENCIES/NGO ACTIVE IN THE STATE (E.G., WHO, UNICEF) "
- e. REPRESENTATIVE OF TEACHING HOSPITAL AND/OR FEDERAL MEDICAL CENTRE "
- f. REPRESENTATIVE OF PRIVATE HEALTH ESTABLISHMENT "
- g. CHIEF MEDICAL RECORDS OFFICER "
- h. ASSISTANT DIRECTOR (PRS) SECRETARY
- i. NATIONAL POPULATION COMMISSION/FOS

7). COUNCIL HAS FURTHER APPROVED THAT BETWEEN 0.5% AND 1.0% OF THE ANNUAL CAPITAL (HEALTH) BUDGET SHOULD BE ALLOCATED AND RELEASED (VIA AN IDENTIFIED VOTE-OF-CHARGE, VOC) BY FEDERAL MINISTRY OF HEALTH, AND PARASTATALS, STATE MINISTRIES OF HEALTH, HOSPITAL MANAGEMENT BOARDS AND LGA HEALTH AUTHORITIES FOR DEVELOPING, STRENGTHENING AND MAINTAINING THE NATIONAL HEALTH MANAGEMENT INFORMATION SYSTEM AND MONITORING AND EVALUATION ACTIVITIES.

8). THIS CIRCULAR IS ISSUED AS A DIRECTIVE TO GIVE EFFECT TO GOVERNMENT MANDATE AND COUNCIL RESOLUTIONS ON ESTABLISHING THE NATIONAL HEALTH MANAGEMENT INFORMATION SYSTEM PROGRAMME. THE FEDERAL MINISTRY OF HEALTH WILL PROVIDE NECESSARY CLARIFICATIONS AND TECHNICAL ASSISTANCE ON THE FUNCTIONS AND COMPOSITION OF STATE VERSIONS OF HDCC AS WELL AS MONITOR AND REPORT REGULARLY TO COUNCIL ON COMPLIANCE WITH THIS CIRCULAR.



DR. IFECHUKWU C. MADUBUIKE  
HONOURABLE MINISTER OF HEALTH  
MARCH 5, 1996

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