REPUBLIC OF KENYA

HEALTH SECTOR

HEALTH INFORMATION SYSTEM POLICY

MINISTRY OF MEDICAL SERVICES
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ABBREVIATIONS

CHAK	-	Christian Health Association of Kenya
CHIS	-	Community Health Information System
DSS	-	Demographic Surveillance System
ERS	-	Economic Recovery Strategy
FBO	-	Faith Based Organization
GoK	-	Government of Kenya
HMIS	-	Health Management Information System
HIM	-	Health Information Management
HIS	-	Health Information System
ICT	-	Information and Communication Technology
ICD	-	International Statistical Classification of Diseases and Related Health Problems
IT	-	Information Technology
JHPIEGO	-	Johns Hopkins Programme for International Education in Gynaecology and Obstetrics
KEC-CS	-	Kenya Episcopal Conference- Catholic Secretariat
KEMRI	-	Kenya Medical Research Institute
KEPH	-	Kenya Essential Package for Health
KNBS	-	Kenya National Bureau of Statistics
MDG	-	Millennium Development Goals
MOH	-	Ministry of Health
NGO	-	Non-Governmental Organization
NHSSP	-	National Health Sector Strategic Plan
NHIS	-	National Health Information System
NHISCC	-	National Health Information System Coordinating Committee
NIMES	-	National Monitoring and Evaluation system
SAGA	-	Semi-Autonomous Government Agency
SUPKEM	-	Supreme Council of Kenya Muslims
SWAp	-	Sector Wide Approach
TWG	-	Technical Working Group

FOREWORD

The development of this first Health Information System (HIS) Policy is a result of various studies that have been undertaken to assess the functioning of Health Information and Management Information Systems in Kenya. These assessments identified a weak institutional regulatory framework. It is envisaged that this policy shall guide the Health sector in developing and implementing an information system that will produce quality benchmarks towards achieving its vision.

The health sector is committed to building a comprehensive performance measurement and management system that supports achievement of its objectives. This policy will ensure availability of reliable and relevant health information, for use by all in order to make evidence-based decisions to allocate resources effectively and improve the quality of health services in the country. Specifically, health care managers at all levels should be able to recognise their specific accountabilities for the achievement of national objectives and use the HIS tools to measure their progress.

As the Ministries of Health decentralise their core business, the demand for sound information and skilled workforce to manage and use the information needs to be strengthened. To this end, the Ministries will mobilize resources to improve and strengthen database management and communication technology in order to provide information that meets the needs of policy makers, managers and service providers. This calls for development of infrastructure and human capacity to collect, process the data and use the information for evidence-based decision making at all levels.

HIS is an integral part of the health systems strengthening. The implementation of this policy is one of the efforts to strengthen the information system to position it in line with the business system it serves. The main goal of the health sector is to implement the reforms geared towards improving service delivery and HIS is the entry point to providing information and knowledge on the quantity and quality of service currently delivered against the needs. Therefore, the HIS policy supports the means of tracking and measuring these parameters.

In Kenya therefore HIS shall be decentralized progressively and efforts will be made to promote information use at the point of data collection. HIS should avail information to gauge the efficiency and effectiveness of the health systems and provide lessons for the next steps at all levels. This HIS policy is a positive step in the right direction for better health for Kenyans through better information.

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CHAPTER 1: PREAMBLE

The role of the Health Information System (HIS) in the health system is not just routine collection of health service data and dutiful conveyance of the same to higher levels of the health care system, but to facilitate evidence based decision-making at all levels especially at the point of collection. The underlying rationale for an HIS's efforts is improvement in health status of the population within a health system. Information collection, analysis and presentation should be organized in such a way that the most needy groups and individuals are identified. Subsequent health planning should be based on such information and strategies should be designed to redress any identified inequalities. In addition, no HIS can afford to discourage the successful use of its information resources by producing information products that are not aligned with the needs of the user in the forefront. No information system should be developed without a careful assessment of the levels of the information generation and use.

One of the key challenges in the Kenyan health sector identified in First Medium Term Plan of Vision 2030 document is weak health information systems. Various weaknesses identified in the existing information systems include lack of policy and guidelines, inadequate capacities of HIS staff, unskilled personnel handling data, lack of integration, many parallel data collection systems, and poor coordination, amongst others. Overall, the current HIS provides limited information for monitoring health goals and empowering communities and individuals with timely and understandable information on health.

Issues of access and intensity of use of health services have always been of significant concern in the health sector in Kenya. The increasing levels of investments in the health sector and the need to show more precisely commensurate achievements and benefits to vulnerable groups in particular have considerably intensified these concerns. Consequently, performance measurement has become a critical management endeavor in the health sector. Performance measurement has influenced and exerted pressure on both national and global demands for information. The demand for evidence towards the achievement of the MDGs, coupled with the increasing need for both multilateral and bilateral donors to demonstrate their contribution towards health development has also created increased demand for information.

Although new developments in technology, including the use of the Internet and other modes of communication offer a great potential in the flow of information amongst the providers and recipients regarding the provision and management of healthcare services, the Kenyan health sector remains far behind in taking advantage of such developments to improve reporting. Performance is grossly under reported with notable exclusion of key providers in the private and quasi government sectors; developments to improve information management lag behind other sector improvement activities; the whole culture of information generation and use remain under-developed; and, mechanisms for validating and assuring reliability are not optimally functional.

Use of information technology in the healthcare sector also creates its own set of issues. These issues concern the right to privacy of individuals and the protection of this right in relation to health information and the development of suitable standards for regulating the provision of healthcare services by the use of technology. Proper regulation of the creation and use of healthcare information is imperative and is a matter of special concern to the government as well as other stakeholders in the field of healthcare.

Consequently; policy needs to address two important, yet sometimes competing goals. The first is the need to gather and disseminate accurate and timely information on the incidence and prevalence of diseases, assessment of healthcare and public health needs and evaluation of programs, services, institutions and providers. Secondly, there is also the need to protect that information from uses or disclosures that can cause harm particularly to individuals and institutions to which the information pertains.

CHAPTER 2.0: THE POLICY ENVIRONMENT (SITUATIONAL ANALYSIS)

The health information system is a comprehensive and integrated structure that collects, collates, analyses, evaluates, stores, disseminates, health and health-related data and information for use by all.

The HIS, like any system, consists of parts which are interrelated, interdependent and work towards a common goal. The malfunctioning of any part affects other parts of the system. The functionality of an HIS may differ from organization to organization. In general the system is a combination of Health Information and Management Information. The system collects information on health (Morbidity and mortality statistics, Service statistics) and on management (human resources, financial, fixed assets and infrastructure, drugs and supplies logistics) and performs comparative analysis with population- based data from various surveys. The HIS is a powerful tool for making health care delivery more effective and efficient.

Health data is generated from many sources – individuals, health facilities, disease surveillance sites, the community and geographical (spatial) areas or units. The data is then summarized, analyzed and used at the district, province and the national levels – depending on needs. Data is transmitted from these sources to the districts, then to the provinces and to the national level. Feedback loops exist at all levels. Within the health sector, data management is either paper based or electronic in different parts of the country. Data is collected manually (paper based) and reported to the districts where it is summarized and analysed, then transmitted to the national level through the province.

Key HIS statistical constituencies include: civil registration system whose vital events include registration of live births, deaths, marriages, divorces, adoptions, recognition, and legitimating; the Kenya National Bureaus of Statistics (KNBS) as the custodian of all Government Statistical information and therefore maintains a database for all national surveys including national population and housing censuses and population based health statistics derived from national surveys; AfriAfya (African Network for Health Management and Communication), which is a consortium of seven Kenya-based health development agencies.

The Health sector developed the National Health Sector Strategic Plan II (NHSSP II) 2005-2010 in line with Economic Recovery Strategy (ERS) and Millennium Development Goals (MDGs). NHSSP II has adopted the Kenya Essential Package for Health (KEPH) and the sector wide approach (SWAp) as its main strategies. Monitoring and Evaluation of implementation of KEPH is an essential component of NHSSP II that allows tracking of results. This monitoring process is coordinated by both the Ministry of Medical Services and Ministry of Public Health and Sanitation, through the Division of Health Information System (HIS).

The Division of Health Information System (HIS) is charged with the responsibility of collecting, collating, analyzing, publishing and disseminating health and management data and information to all stakeholders (both public and private) for evidence based decision making. The information that is disseminated is used for planning and management of health services and programmes. HIS collects routine data from various sources such as: health facilities (both public and private); research institutions (e.g. KEMRI); disease/sentinel surveillance sites; civil registration; Kenya National Bureau of Statistics (surveys and censuses) and other Government Ministries.

However, a number of weaknesses have been observed with the existing system especially in coordination and maintenance of a uniform system in both the public and private sectors to monitor implementation of health services. This has been largely attributed to lack of a policy and legal framework to harmonize and enforce the data and information management at all levels since the establishment of HIS in 1972. This has been evident with the increase in the demand for health information for evidence based decision making. Other weaknesses include exclusion of key providers in the private and quasi government sectors. Culture of information generation and use remains under-developed or is limited, inadequate capacities of staff in HIS, many parallel data collection systems, lack of policy and guidelines, poor coordination, and limited funding.

Those with the most severe health problems are often those with weakest HIS. When global organizations and donors implement their own data collection to respond to their specific needs, they tend to focus narrowly on specific disease areas and their inputs are uncoordinated and duplicative. This also serves as a disincentive to national authorities to invest in health information systems, thus exacerbating problems of poor coordination. The end result is a perverse combination of data overload due to too many poorly coordinated efforts and simultaneous lack of data needed for decision-making.

2.1 Rationale for the HIS Policy

The HIS policy is an expression of the goals, priorities and strategies for improving performance in the health sector. It underscores the importance the two Ministries of Health place on performance measurement as a means of gaining insight on effectiveness and efficiency of delivery of health services. The application of the HIS principles is also expected to enhance accountability and provide a forum for learning from previous experiences.

Current HIS in Kenya faces a number of challenges. Firstly, there is a proliferation of data collection tools most of which have been developed by the public health sector for the management of its sector information. A number of these forms have their origins in programmes developed and executed solely by the public health sector with minimal or no engagement with other health care providers. Apart from the question of the continuing relevance of some of these tools, the overwhelming demands from higher levels do not support data for planning and decision-making at the lower levels. The end result is that there is poor coordination and linkages between the different data collection systems leading to significant duplication and/or omission of key data sets for performance assessment.

Secondly, the lack of or inadequacy of requisite skills at all levels coupled with a perception of non-usefulness of information and data collected at the lower levels have conspired to create an exceptionally low level of commitment from health providers. Programme focused strategies receive more support and recognition as a result of the lack of commitment. This has led to difficulties in coordination since programmes have differing priorities and the ultimate is to justify the use of resources put at their disposal. However, the major challenge seems to be the lack of dependence on evidence for accountability within the health sector. At the various levels, funding and other resources are made available even if managers fail to report adequately on performance. These challenges underscore the need to create the necessary policy and regulatory environment and to define a legal framework for information management and reporting in the health sector.

Careful, thoughtful long-term strategic planning within the Health sector can be realised only when there is an appropriately developed HIS policy. Strategic planning, based on a rational and agreed policy framework, is the only way to ensure that health information systems and applications that are being operationalised throughout Kenya will be able to exchange data easily and export data in meaningful and useful forms. The Government of Kenya (GoK) must devote resources, generate

consensus around realistic plans and goals that thoughtfully support commitment to the right personnel in well-defined positions at central and district levels and at facilities which have the capacity and support to handle coordination, dissemination, training and management of ongoing demand for quality data and utilization of the data. The GoK must maintain that commitment over time.

The HIS policy is thus described with the understanding that it shall guide and measure the extent to which the health sector achieves its objectives as specified in the national health policy. The end result should go beyond data gathering and processing but use of the information for improvement of service delivery in the context of Kenya Vision 2030 which aims at creating a globally competitive and prosperous Nation with a high quality of life by 2030. Quality of life, and therefore the health of the Nation is fundamental. It is envisaged that the policy shall guide health information professionals in developing and implementing an information initiative that will produce quality benchmarks towards the health sector vision.

2.2 Guiding Principles:

The development of this policy was generally guided by the principle of readily available and accessible data to those who need it, consistent with the fundamental principles of official statistics adopted by the United Nations Statistical Commission. This fundamental principle demands that statistical data and health information be made liberal and readily accessible as a "Public good" and in a timely manner, and also promotes use of existing data.

The development of this Policy was therefore guided by the following specific principles:

a) The need to establish and maintain a simple, coherent, scientifically sound, easily understandable and compatible information system for tracking the degree of achievement of the health sector objectives at all levels, taking into account the national values of universal coverage, equity, quality and social justice.

b) The need for readily available and accessible data as a public good, for management, decision making and performance measurement, which therefore calls for the need to collect and disseminate accurate and timely information on all the aspects of health care delivery.

c) The recognition of the utility of compulsory and comprehensive reporting of health care performance in public sector, private sector, FBO/NGO, community and any other service provider.

d) The importance of information generation and use through putting in place functional mechanisms for information/data validation and reliability

e) The recognition of the right to privacy of individuals and protection of this right in relation to health information which will call for developing suitable standards for regulating health care provision and information through use of appropriate language and technology.

f) The need to promote ethical considerations in matters concerning data security and information disclosure.

g) The need to share information amongst all stakeholders.

h) The need to establish clear structures in support of the system and accountability for results by well trained and motivated personnel.

i) The need to establish linkages with all data sources by using appropriate technology.

CHAPTER 3.0 HEALTH INFORMATION SYSTEM POLICY FRAMEWORK

3.1 Vision of HIS

Be a centre of excellence for quality health and health-related data and information for use by all.

3.2 Mission of HIS

To provide timely, reliable and accessible quality health information for evidence - based decision making to promote the health of the nation.

3.3 Policy Goal

This policy seeks to enhance availability of comprehensive quality health and health related data and information for evidence-based decision making. This policy will therefore serve as a guide for decision-making in the health sector on HIS. It seeks to address such issues as partnership in data collection and information sharing, guidelines on data processing, and data warehousing as well as instituting standardized mandatory reporting by all care providers (public and private) and quality in data management in the health sector.

3.4 Policy Objectives

a) Promote one health information system in Kenya upon which **all** shall be committed to.
b) Promote use of health information for evidence based decision making, promote accountability and empower citizens to make healthy choices.
c) Promote linkages with other statistical constituencies, partnerships and management components.
d) Promote collection of sufficient, relevant, reliable and quality health statistical data pertaining to the health status of the nation, health services coverage and utilisation.
e) Promote and encourage production and dissemination of timely, easily understood health and health related information for evidence based decision making by managers at various managerial levels within the health sector.
f) Enhance closer co-operation between producers and users of health related data and information through regular meetings, seminars, training and publications.
g) Promote reporting by all health related statistical constituencies through the use of standardized data collection and reporting tools.

3.5 Policy Statements

To attain the stated goal and objectives of this Policy, there will be need to put in place the following priority actions:

a) Promote integration of data collection, information dissemination and utilisation at various levels through partnership in health information processes amongst all health service providers.
b) Institute guidelines and legal framework for health data and information reporting and Feedback.
c) Promote standardization, harmonization, management and coordination of data collection tools and systems.
d) Address the application and use of Information and Communication Technology for HIS data and information processes.
e) Define data management processes plus dissemination and utilisation strategies.
f) Address challenges regarding Storage and Security of Health Data and Information.
g) Formulate Evaluation Criteria for HIS
h) Address HIS sustainability issues

i) Define the organizational structure for HIS
j) Define roles and responsibilities of various stakeholders
k) Guide the establishment of a regulatory and legal framework for health information
l) Guide the establishment of a Professional Regulatory Board for health records and management information personnel
m) Guide the institution of an HIS Coordinating Committee
n) Put in place resource mobilisation strategies and control of investment inflows into HIS
o) Budgetary allocation of at least 10% (Ten per cent) of the total sector allocation

3.6 Priority Actions

3.6.1 Integration of data collection and dissemination through partnership in health information processes amongst all health service providers.

The existing HISs are designed and implemented with no or limited participation of those who are to ultimately operate them. Neither is there adequate involvement of those who are to use the information generated by these systems. Existing HISs are highly fragmented with no linkages with other healthcare providers at various levels. The design and implementation of these systems does not facilitate integration of different sources of health information within the health system. There is poor integration of vertical programs and administrative information into the routine HIS. Consequently, there is no sharing of information among health care providers in the health system. The basic premise to be adopted in the development of these systems should be with a focus on improving the health status of the Kenyan population. Meaningful improvements can only come about as a result of provision of integrated information generated and used by all health care providers in Kenya.

Inadequacies in access to and availability of information call for the creation of partnerships and shared vision in health information. Lack of a common vision and coherent policies within the health sector may be attributed to the lack of adequate and shared information. The partnership between information users and collectors helps to minimise errors and greatly reduces external criticism of the HIS. Making information users partners in the design and implementation of an HIS has the opportunity to unify its goals with users' goals. Ideally, the partnership between information producers and information users should be formed as early as possible in the data collection process. To achieve effective partnerships in health information processes, this policy aims to ensure the following:
a) Integration of data collection and sharing of information among all stakeholders at all levels both horizontally and vertically.
b) Integration of the various sub-systems of the HIS by linking health information, management and community information systems.
c) Formation of stakeholders' fora to foster partnership in HIS activities.

3.6.2 Guidelines and legal framework for reporting and feedback

Health care providers are mainly concerned with the collection and reporting on health service (patient) data with very minimal, if any, collection and reporting on management/ administrative data. In the absence of data collection and provision of information on health resources such as personnel, finances, physical facilities, transport and equipment, it becomes very difficult to relate health resources to actual provision of services to the populations being served.

This needs to change as the information required by various health care system stakeholders ranges from the broad and qualitative information, which is often in the realm of general knowledge, to specific demographic, epidemiological and administrative information.

The most frequent problem is the lack of feedback to information providers and users. When feedback is finally received from above, it inevitably comes too late to impact on decisions. To address these gaps and weaknesses, this policy will ensure the following:

  a) All activities shall be reported in line with the existing regulations which will be updated from time to time by the HIS
  b) Streamlined ethics of reporting health information within and across levels of health administration in the country.
  c) Enforcement of mandatory reporting by all health care providers
  d) Putting in place administrative guidelines for mandatory standard reporting of health and health related data and information to a central authority. Such guidelines shall spell out:
      i.   Responsibilities and reporting mechanisms and schedules to be applied to all data
      ii. Type and content of data to be collected and reported by all health care providers in Kenya
      iii. A minimum set of indicators to be reported and formats for reporting them to enable data to be submitted to higher levels
      iv. Mechanisms for reporting and feedback at all levels
      v.   Establishing feedback mechanism at all levels
  e) Regular submission of reports to the next level of service who shall observe timely feedback to submitting facilities or levels
  f) Mandatory requirement to report and give feedback on health information by all.
  g) Alignment of multiple stakeholders towards a common reporting mechanism and objective

3.6.3 Standardization and harmonization of Information Systems

Data collection tools vary in numbers from one system to the other. One of the major complaints by health care providers is that the number of forms used in data collection is too large. Some of these forms are redundant in that they are collecting data already being collected by other forms. To address this issue this Policy will ensure that:

  a) There is one uniform standardized Health Information, monitoring and evaluation system.
  b) Harmonized minimum data sets are designed, developed and periodically reviewed after at least 2 (two) years of operationalization.
  c) Compatible health information systems are developed
  d) Tools for community units are developed and mechanisms put in place to facilitate partnership with community units
  e) National and International Standards in data management are adhered to.

3.6.4 Application and use of Information and Communication Technology

The application of information and communication technology (ICT) in the health sector aims to simplify administrative processes and reduce data gathering and processing costs. It also aims to facilitate the delivery of health related information to remote locations within the sector. The application of information technology in the health sector is of paramount importance to align the multiple stakeholders towards a common reporting mechanism and objective. The starting point is to address a number of constraints plaguing the health industry in Kenya. First is the lack of policies and legislations to protect privacy while permitting critical analytic uses of health data, the lack of uniform, multipurpose data standards that meet the needs of the diverse groups that record and use health information, and a workforce that lacks understanding of Health Informatics.

This Policy, therefore, seeks to define a robust system for the use of information technology to capture, store and exchange health information in an environment supported by systems that will bring administrative simplification and improve patient care services by providing a continuum of care. As the use of information technology and the exchange of electronic health information

increases, concerns about the protection of personal health information exchanged electronically within a nationwide health information network will also increase. The Health Sector will have to initiate activities that, collectively, will address aspects of key privacy principles.

In Kenya, Health Information is not integrated with information technology to the extent witnessed in developed countries. The limited availability of the requisite skills and equipment at the various levels and the high levels of IT illiteracy remain significant challenges. Thus, while the application of ICT is desirable the framework will focus on specific modes of generation and use of Health Information that are relevant in the Kenyan context.

This Policy addresses ICT strengthening through making the database more flexible and strengthening of decentralized information centres that are linked to a central data warehouse. Application of appropriate ICT for the 21st Century is critically needed to enable improved communication between levels and dissemination of information outside the health sector.

This policy will address the identified issues by ensuring the following:
a) Integration of health information with technology
b) Application of appropriate technology for generation and use of health information
c) Simplification of administrative processes and facilitation of the delivery of health related information to and from remote areas within the sector.
d) Use of uniform ICT specifications in the public sector.
e) Use of standardized and interoperable ICT applications.
f) Adequate security measures for protecting health information including defined access rights, liability and sanctions.
g) Development and maintenance of databases.
h) Use of cost-effective and sustainable ICT taking into account, ethical and cultural considerations.

3.6.5 Data Management (Recording and Analysis), Dissemination and Use
Data capture varies from one system to another depending on the design and the number of forms introduced in each system, which eventually determines the type and amount of data collected by each system. Different HISs in Kenya has varying numbers of data collection tools. Given the fact that some of these forms are to be completed by the already overburdened health care staff in the facilities, it is resulting in most data not being collected as these staff see their first priority as being the provision of health care to the clients and patients and only turning to the forms when there is time to spare for this activity.

Health care professionals spend a significant proportion of their working time collecting large amounts of client and patient data that is rarely analyzed and used at the point of collection. Health workers merely collect, aggregate and dutifully pass over this data to the next level. This information is rarely ever used to guide local action at the level at which data is collected. Very little information from the collected data ever reaches health system managers; this is despite the fact that an HIS is mainly designed to facilitate the operations of the health system managers at various levels. This could possibly be explained by lack of involving information users in the design of these systems. While the basic data capture and reporting skills are present, there is little attention to data quality and staffs lack the self-assessment skills or the "epidemiological thinking" needed for the analysis, interpretation and use of information for actions. Additionally, even when information users are involved, they often make data demands that are not cognisant of the limitations or challenges faced by the providers to produce all the expected information.

Without population-based information, it is impossible to do even the most basic types of monitoring of health system activities. Lack of a coordinated data collection strategy is a recurrent problem which leads to duplication of effort and competition among data collecting units and health care providers. Other problems relate to poor quality, incompleteness, inconsistency and lack of timeliness of much of the data being generated by HIS. Medical data should only be used for the purposes for which it was collected, and for additional purposes authorised by law, or consented to by the data subject. The purposes for which health data is collected needs to be clear.

This Policy emphasizes improved use of information for local action that responds to local needs as well as the needs of program monitoring and management improvement. It also seeks to promote local action research skills in order to enhance local analysis of existing records and sentinel site data to get quality routine data and up-to-date analysis, improved dissemination and feedback of information.

Capacity for data management and use within the HIS is critically limited at all levels of the system amongst HIS staff who are supposed to produce analysed information for use amongst managers who should use the information jointly with facility staff who collect the data. This Policy therefore calls for the following priority areas to be observed to address the identified issues and gaps:

a) Noting that patients' records are by far the biggest primary source of health data, all persons attending to patients shall undertake to record this data either manually or electronically in line with the prescribed format.

b) NHIS shall develop and publish guidelines with templates for essential data analysis at all levels and conduct relevant training in this respect.

c) Data management processes (capture, transformation and dissemination) shall be both manual and electronic.

d) All inpatient activities and outcomes shall be recorded in line with WHO ICD or a similar nomenclature if the HIS so authorises.

e) Each level shall maintain an efficient database for all health and management activities in their areas. Data within each level shall be collected, edited, coded, entered using a standardized software as recommended by HIS.

f) Create demand and promote use of HIS through timely supply of accurate and easily understandable information.

g) Use of information for action is essential at all levels especially at the points of collection in order to improve quality of data and stimulate critical self-assessment.

h) Dissemination of information for evidence based decision-making shall observe timeliness, format, relevance and completeness.

i) Data collected by the health sector shall be non-patient identifiable

j) Medical data should only be used for the purposes for which it was collected, and for additional purposes authorised by law, or consented to by the data subject.

k) Data quality assurance will be guaranteed through developing and publishing guidelines on data management, supervision and data quality audits.

l) NHIS shall aggregate and analyze the national health data and provide quarterly bulletins, as feedback to lower levels and divisions for corrective action.

m) The NHIS shall regularly publish its reports on the Ministries of Health websites to enhance access by individual researchers, research institutions and the public at large. Limited hard copies will be available to strategic partners and negotiations will be undertaken with the government printers to supply copies on sale.

n) All publication intended for the press or other public media shall be cleared by relevant authorities in the Ministries of Health before release.

3.6.6 Access to Health and Health related Data and Information

While the records (the documents or disks) are unequivocally the property of the practitioner or institution, the data is not. Data is not capable of being owned, and many different people have an interest in it, including and especially the person to whom it relates.

The practice of transferring records when an appropriately documented request is made is therefore highly desirable from a treatment viewpoint. To ensure that this happens, the Policy will ensure that:

a) All the health and health related data and information shall belong to the Government of Kenya.
b) GoK shall grant right to access health and health related data and information through the defined protocols.
c) Personal data as inpatient records are in reality the property of the facility and are held in trust on behalf of the patients. All patients shall have access to information contained in their health records upon request or whenever it is considered to be of benefit to the patient.
d) Health workers who have privileged access to patient's records shall be accountable to maintain the highest level of confidentiality and ensure that shared confidentiality is only practiced in the interest of the patient.
e) Notwithstanding the provision of item **3.6.6(d) and 3.6.7(b)** on matters of litigation, health workers can divulge information obtained in confidence on the instruction of legal authority and in line with the existing laws.
f) The MOH shall ensure that data and information required for defined global surveillance systems is collected in compatible formats and submitted to relevant authorities in time / on schedule.

3.6.7 Storage, Confidentiality and Security of Health Data and Information

The manner in which information is stored in an HIS has implications on its use and security. Given the manual nature of the existing HISs, their information cannot be readily transmitted as it is not physically accessible mainly due to type of storage system used. Current systems lack adequate storage space.

Appropriate standards are needed in relation to the condition in which the data is maintained. This includes precautions against fire and other accidents and criminal acts. In the case of computer-based records, the additional question arises as to how the records can be accessed. Because of data sensitivity, appropriate security against unauthorised access and modification is essential; particularly where a provider fails to comply with privacy standards prescribed by this policy or any existing or proposed health law or knowingly violates patient privacy, obtains protected Health Information under false pretenses. The policy framework will establish basic structures and rules about information practices which will lead to the creation of databases at management levels within the health sector.

In line with the principles of information privacy, data collected by the health sector shall be non-patient identifiable – i.e. **anonymous**. This shall be different from the policies on medical records management.

Since medical data is sensitive, and since a duty of confidence generally applies to data which a health care professional gathers in the course of his relationship with a patient, it is necessary to regard health care data as being unavailable to third parties in the absence of a clear and authoritative reason. In the case of referral processes, care is needed to ensure that only relevant parts of the patient's history are communicated.

This HIS Policy framework seeks to establish administrative guidelines that will provide sanctions for improper possession, brokering, disclosure, or sale of Health Information as spelt out below:

a) A centralised data and information repository shall be established at each level to facilitate ease of access and also guarantee data and information security.

b) The publication of the information from HIS shall be guided by the provision of the HIS Guidelines, and any other existing regulations on privacy. In all HIS operations, efforts shall be exercised to protect the clients' rights without compromising safety and knowledge development.

c) All facilities shall be responsible for safe storage and easy retrieval for all records under their care and in line with NHIS archives regulations. All records in electronic formats shall be stored in CD-ROMS and safeguarded by passwords.

d) Until otherwise regulated, records belonging to patients who die in health facilities shall be kept for 10 (ten) years subject to availability of space.

e) All other patients' records and registers shall be disposed every ten (10) years after closure and report forms shall be disposed as soon as electronic versions are made.

f) Unless otherwise regulated, authority to destroy medical records will only be obtained by application to the Director of Medical Services.

g) All health data from health and social welfare system shall be shared with all stakeholders within Kenya. Publication of unpublished data outside Kenya however shall only be after consultation with relevant authorities.

h) Access to health and social welfare databases shall be restricted to authorized individuals only.

i) Security mechanisms shall be ensured for health data and information (i.e. storage, improper possession, brokering, disclosure, dissemination, confidentiality and privacy)

j) Penalties for misuse of health and health related data shall be established.

k) Storage of collected data and generated information shall be handled with the confidentiality and security they deserve

l) Data backup and archival shall be mandatory with clear mechanisms of pre- and post disaster recovery.

m) Health and health related data and information shall be hosted by HIS.

n) Warehousing shall be created and maintained for data and information at central level within the health sector.

3.6.8 Evaluation Criteria for HIS

The absence of evaluation criteria necessary for evaluating the implemented HIS remains a major shortcoming in the design and ultimate implementation of HIS in the health sector in Kenya. Without evaluating their systems, developers can never know which techniques or methods are more effective, or why certain approaches failed. Evaluation of any intervention is not simply an activity that should take place at the end of the implementation cycle. Evaluation plans should be appropriately integrated with system design and development from the outset.

It cannot be assumed that implementation of an HIS will be carried out as designed. There are many places within the health system where instructions can go astray, and top officials must take steps to help guarantee that HISs are implemented properly. This can only be achieved through evaluation which in turn necessitates the formulation of appropriate evaluation criteria at HIS design stage. The justification of establishing evaluation criteria at the system design stage is that by stating the criteria in advance, the designers of the system will be setting up steps or rules that will have to be followed when evaluating the success or failure of the system. Stating evaluation criteria early helps avoid the temptation to rationalize the introduced HIS. If the developers are able to enunciate clearly the objectives of an HIS, defining questions to be answered by an evaluation study becomes easier. To achieve the objectives of HIS, the following evaluation criteria should be set up:

a) The pre-implementation evaluation of the design shall address the following criteria:-
    i.   Policy and objectives
    ii.   Technical feasibility
    iii. Financial viability
    iv.   Political viability
    v.   Administrative operability

b) Concurrent (operational) implementation evaluation criteria shall:
    i.   Monitor the extent to which the actual implementation of the system is as envisaged at the pre-implementation stage
    ii.   Determine the degree to which the implemented system is successfully achieving its stated objectives and whether it is providing the services and benefits envisioned by the designers.

c)   Post-implementation evaluation criteria shall ascertain the extent to which the hypothesized benefits of the introduced system have been realized by application of the following criteria:
    i.   Internal criterion (quality of information)
    ii.   External criterion (resource and managerial support)
    iii. Ultimate criterion (impact)

3.6.9 Sustainability

Most HISs lack the requisite resources for ongoing information processing, reflecting low managerial priority. There is inadequate supply of human, material, technical and other resources needed for the functioning of HIS. Most staff are inadequately trained in HIS procedures and there is not much faith in the results coming out of the HIS. For purposes of sustainability, HISs require resources and adequate long-term funding for such necessities as recruitment of staff in right numbers, computers, stationery, communication equipment, systems and staff development, reports and communication costs. Sustainability can be enhanced by active involvement of all parties at all stages of HIS development. Sustainability will also depend on HIS staff retention through improving their skills and status.

In order for the HIS to be sustainable, procedures should not be static. Procedures need to adapt to changing environments and information needs of managers, policy setters and other categories of information users. Human resource capacity must be strengthened with a comprehensive training program to promote a "culture of information" among HIS staff at all levels/ sub-systems, programme managers and facility health care workers at all levels. Sustainability of the HIS shall be achieved through:

d) Ensuring that staff working in the HIS are technically qualified and deployed in adequate numbers
e) Putting in place skills development programmes and regular training on data management and benchmarking for all levels of service.
f) Mobilization and allocation of adequate resources (equipment, material, infrastructure, and financial) required for ensuring an effective functional HIS
g) Ensuring managerial commitment and support for HIS operations.

CHAPTER 4.0: IMPLEMENTATION FRAMEWORK

4.1   Organizational Structure
This policy framework recognizes the various existing management levels of the health sector in Kenya which gives the health management team oversight responsibility of all health care provision at each management level. These management teams shall be responsible for health and management information processes at their respective levels. They shall supervise the collection, analysis, storage and dissemination of data and information by health providers and shall be responsible for registers and other data collection tools at each level.

4.2   Roles and Responsibilities
This section defines roles and responsibilities of the various actors at all levels of the health sector

4.2.1 National HIS Coordinating Committee (NHISCC)
A NHISCC with representation from senior level officers in the Ministries of Health, Statistical constituencies and development partners shall be formed to strengthen NHIS function. The Permanent Secretary shall appoint a chairperson to steer HIS Coordinating Committee. The Ministries of Medical Services and Public Health and Sanitation together with other participating stakeholders, shall provide the Committee with the financial and human resources needed to undertake its day-to-day activities. The Committee will establish its own internal procedures and work agenda.

The **NHISCC** shall provide technical advisory role for health and social welfare data management in close collaboration with other strategic partners including KNBS and Vital Registration. The committee shall ensure unified and timely data collection, collation, processing and dissemination. To maximize efficiency, the **NHISCC** shall develop strategic options for human resource development in data and information management and participate in operational research

4.2.2 The General Public
The public shall ensure that any vital events or other significant health occurrences in the community are reported to the responsible authorities.

On the other hand the public shall be entitled to information on the Ministries of Health performance through relevant publications by the Ministries or on specific special requests**.**

4.2.3 The Private Sector
Currently there is no legal obligation for the private sector to provide their activity data to Ministries of Health. However through this policy all health service providers in the private sector will have a mandatory requirement to submit their data regularly as stipulated in order to give a comprehensive picture of the sector.

When the Public Health Act is reviewed, it is proposed that statutory provision be made to require the private sector to notify on at least all diseases under surveillance.

4.2.4 Faith Based Organization (FBOs)
The Ministries of Health, CHAK, NGO KEC-CS SUPKEM shall endeavour to work together to build a unified health and social welfare data collection, collation, analysis and publication system.

In spirit of partnership, FBOs will ensure all health facilities under their respective umbrellas to adhere to NHIS.

In collaboration with Ministries of Health and other partners, FBOs shall mobilize resources for, NHIS and ensure efficient data and information management in all its satellite facilities.

4.2.5 Ministries of Health
Roles by level
a) Community level
i. Every Community Unit (CU) shall maintain and update its CHIS that shall be shared regularly with household members in a forum as stated in the health sector community strategy.
ii. The community health workers shall maintain registers recording daily activities and reporting regularly to supervising health facility.

b) Health facility level
i. The health facility shall maintain and update its HIS which shall include records, filing system(s) and registry for primary data collection tools (such as Registers, cards, file folders), summary forms (such as reporting forms, CDs, electronic backups) safeguarded from any risks e.g. fire, floods, access by unauthorized person, etc.
ii. Every health facility shall summarize health and health related data from the community and health facility, analyse, disseminate and use the information for decision-making, provide feedback, then, transmit summaries to the next level.

c) District level
i. The District shall have oversight responsibility to manage all health and health related data from all service providers within their area of jurisdiction.
ii. The district shall give technical, material and financial support to all service providers in HIS.
iii. The District shall create and maintenance a data repository.
iv. The district shall collaborate and work in partnership with other statistical constituencies at the district level to built one HIS.
v. The district shall collate, analyse, disseminate, use health and health related data from all health facilities/providers and give feedback to all health care providers.

d) Provincial/Regional level
i. The Province shall have oversight responsibility to manage all health and health related data from all service providers within their area of jurisdiction.
ii. The province shall give technical, material and financial support to all districts and service providers in HIS.
iii. The Province shall create and maintenance a data repository.
iv. The province shall collaborate and work in partnership with other statistical constituencies at the provincial level to built one HIS.
v. The province shall collate, analyse, disseminate and use health and health related data from all districts and give feedback to all health care providers.

e) National level

    i. The National level shall have oversight responsibility to manage all health and health related data from all service providers.

    ii. The national level shall give technical, material and financial support to all districts, provinces and service providers in HIS.

    iii. The national level shall develop guidelines and formulate policies.

    iv. The national level shall coordinate development of minimum data sets and data requirements of the health sector.

    v. The national level shall collate, analyse, disseminate and use health and health related data from all districts, provinces and service providers and give feedback to all.

    vi. The National level shall create and maintenance a data repository.

    vii. The national level shall collaborate and work in partnership with other statistical constituencies at the national to built one HIS.

4.2.6 Other statistical constituencies

    i. KNBS

    ii. Vital Registration and

    iii. Research and training institutions

    iv. There shall be close working relationship and partnerships with HIS to provide data on population- based statistics, vital events (births and deaths) and health related research data for comparative analysis and warehousing.

4.2.7 Other Ministries

There shall be close collaboration and partnership with other ministries in strengthening HIS such other ministries include, Ministry of education, Ministry of planning and vision 2030 (National Monitoring and Evaluation system), Ministry of home affairs and national heritage- Kenya national archives.

4.2.8 Training institutions

    i. Harmonization of the human resource requirements of HIS to the training curricular offered by training institutions.

4.2.9 Mass media

    i. Advocacy on health and health related information.

4.2.10 Implementing partners

    i. Support to strengthen HIS in their areas of operation

    ii. Work within the existing HIS framework and meet the reporting requirements as defined by minimum datasets.

4.2.11 NGOs

    i. Close partnership in HIS strengthening especially in population based studies such as Demographic Surveillance Systems (DSS).

4.2.12 Development partners (DPs)

    i. In the spirit of Kenya Health Sector wide Approach (SWAp), development partners are encouraged to give technical, material and financial support to strengthen NHIS. The DPs should promote one national integrated health information system.

4.3   Establishment of a Professional Regulatory Board

The Health Information Management (HIM) profession in Kenya has been created because of a need for accurate, complete data regarding the care and treatment of patients and the production of timely information for evidence based decision making within the health sector. HIM professionals like their other colleagues within the health sector need to be regulated in order to ensure that they operate professionally. Regulatory mechanisms for Health Records and Information Management, like any other health profession, shall include activities like state licensure of practitioners, accreditation of programmes, certification of practitioners, and legislation that governs practice. This calls for the establishment of a Professional Regulatory Board which shall be responsible for:

a) The development of HIM professionals through setting up educational standards for quality educational programs and providing recognition for the educational programs that meet those standards
b) Certification of educational programmes for HIM profession, Research and Advocacy
c) Regulation of entry into health information management profession by ensuring HIS is staffed by qualified personnel

4.4   Resource Mobilization

The effective, efficient and sustainable operation of an effective HIS requires mobilization and availability of resources in adequate quantities – financial and human. Sustainability of the HIS therefore requires a continuous flow of financial support at any given time. Similarly, care must be taken to provide the right numbers of human resources with the requisite skills. Resource mobilization mechanisms and avenues shall consist of:

a) The Ministries of Health - in collaboration with partners who will mobilise financial resources through appropriate and sustainable means to enable all the levels of health care and health sector to produce high quality health and social welfare data as well as for the development of staff skills and provide critical inputs to convert data into meaningful information readily available for decision making
b) The National HIS Coordinating Committee (NHISCC) will also be used as a resource mobilization forum
c) Budgetary allocation of at least 10% (Ten per cent) of the total sector allocation
d) Human resource acquisition and deployment – quantity and quality

4.5   Operationalization of the Policy

a) The implementation of this Policy shall be supported through a long term strategic plan complemented by annual action plans, which shall be developed to guide implementation of this Policy.

4.6   Monitoring and Evaluation

a) The **NHISCC** shall ensure that the HIS Policy and its implementation are regularly reviewed to maintain relevancy and appropriateness to the broader objectives of the health sector.