

REPUBLIC OF KENYA



MINISTRY OF HEALTH

KENYA NATIONAL HEALTH DATA DICTIONARY GOVERNANCE FRAMEWORK

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FOREWORD

The Government of Kenya recognizes its citizens' right to health as enshrined in the constitution and other international treaties and covenants to which Kenya is a signatory. To deliver on this promise, the government is obligated to create the necessary laws, policies, and standards to achieve equitable and affordable healthcare for all. In addition, the MoH has envisioned a digitized health ecosystem, where technology is adapted to support quality health service delivery, access to healthcare and data collection for decision making at all levels. Moreover, this is in line with implementation of the Health Act, 2017 which provides for the development and maintenance of a comprehensive integrated health information system by the MoH.

The ministry has identified Information and Communication Technology as a key enabler towards the realization of Universal Health Coverage. Indeed, significant investments have been made in this regard, including the implementation of Electronic Health Records systems, Laboratory Information Systems, the Kenya Health and Research Observatory, among others. Each of these independently created systems is capable of gathering, storing, and disseminating crucial electronic data that shall enhance Kenyans' health system. Without national coordination, these data will be inconsistent across systems, which would greatly limit their value for the health sector as a whole. Unfortunately, this restricts the nation's capacity to quickly share, incorporate, and reuse these data on behalf of its citizens.

The MoH has developed a National Terminology Service that enables the realization of health information exchange through creating interoperability between systems in the health sector. This provides for collaborative management, publication, versioning and utilization of a standardized data dictionary that health sector stakeholders will access and utilize through the deployment of digital health systems at various levels of the health system.

This framework provides a detailed description of the development and implementation of the Kenya National Health Data Dictionary (Ke-NHDD). The reference Architecture that will guide the design and establishment of the Ke-NHDD is well outlined in this framework. In addition, a governance structure anchored at the MoH has been defined in this framework. To ensure inclusivity, the governance teams have been drawn from across health sector stakeholders.

ACKNOWLEDGEMENT

EXECUTIVE SUMMARY

Definition of terms

Data dictionary:

It is a collection of unique names, definitions and attributes about data and metadata elements that are being captured in a database.

Governance

Governance is a collection of processes, roles, policies, structures, standards, and metrics that ensure the effective and efficient use of information in enabling the health sector to achieve its goals.

Platform:

The Kenya National Health Data Dictionary (KE-NHDD) will run on a platform which provides real-time electronic access to terminological resources and straightforward integration with independent software platforms. The initial set up will use Open Concept Lab (OCL) but this may be changed as desired by the country.

Name:

This resource will be known as the “Kenya National Health Data Dictionary (KE-NHDD)”

Organization:

On the Terminology Services Platform (TSP), the organization will be listed as “Kenya MoH”

Owner:

On the TSP, the owner of this resource will be listed as “Kenya MoH”

Reference Terminology

A set of concepts and relationships that provide a common reference point for comparisons and aggregation of data about the entire health care process, recorded by multiple different individuals, systems or institutions. These are the standard terminologies which are hosted by the KE-NHDD

Terminology

A terminology is a formal set of definitions or classifications used in a particular domain or area of study.

Terminology service

A terminology service is a combination of the processes, people, technology, and governance required to enable the adoption, selection, and management of clinical terminologies. This involves a set of functions built on the definitions provided by a collection of CodeSystem, Value Set and Concept Map resources, with additional inherently known terminologies providing support.

Interface Terminology

This is the platform that maps to reference terminologies. Columbia International e-Health Laboratory (CIEL) will be used as our "seed" interface terminology but we will not be "permanently bound" to it to allow Kenya to innovate in future including separating from CIEL (and even OCL) in the event the country decides to.

Concept

Representation of terminologies organized in hierarchies. Each concept is identified by a unique concept identifier.

Mappings

Links concepts to other concepts whose meaning is related in some way. These relationships provide formal definitions and other properties of the concept

Sources

represent different origins for concept data e.g ICD-11, SNOMED, LOINC

Collections

Represents the subset of concepts identified for a specific use

Organization

Represents the subset of concepts identified for a specific use

Users

Individuals or organizations contributing to or utilizing KNHDD

Chief terminologist

This is the steward, champion and approver for NHDD

Reviewer

A Subject Matter Experts (SME) who provides domain-specific expertise to the Terminology Services team

Acronyms

ATC	Anatomical Therapeutic Chemical
CIEL	Columbia International e-Health Laboratory
DHP	Digital Health Platform
GDD	Global Data Dictionary
GS1	Global Standards 1
ICD-11	International Classification of Diseases 11th Revision
ICPC-3	International Classification of Primary Care - Routledge
KE-NHDD	Kenya National Health Data Dictionary
KMHFL	Kenya Master Health Facility List
LOINC	Logical Observation Identifiers Names and Codes (LOINC),
MOH	Ministry of Health
NHTS	National Health Terminology Services
OCL	Open Concept Lab
SNOMED	Systematized Nomenclature of Medicine (SNOMED CT)
TSP	Terminology Services Platform

BACKGROUND

The MoH has envisioned a digitized health ecosystem, where technology is adopted to support quality health service delivery, access to healthcare and data collection for decision making at all levels. With support from its partners, the MoH has been actively deploying information technology and communications to improve the efficiency, quality, delivery and uptake of health services throughout the country. Each of these independently developed systems have the capacity to collect, store, and share electronic data. However, without deliberate coordination, data collected can be inconsistent between systems and hence significantly reduce its usefulness across the health sector. This may create limitations in the country's ability to easily share, integrate, and reuse data collected across the country. There is therefore a critical need to address this gap to ensure that the dream of having data being shareable across various systems is realized.

The MoH is implementing the Kenya National Health Data Dictionary (KE-NHDD) which is hosted on an open-source, standards-based National Health Terminology Service (NHTS). The NHTS will enable collaborative management, publication, versioning and distribution of standardized data dictionaries and other relevant content, which health sector stakeholders will access and utilize through the digital health systems directly or indirectly deployed at various levels of the health system. The NHTS is meant to centrally store and make available the curated and managed content to participating systems, such as the MoH endorsed standards, definitions such as terminologies, ontologies, dictionaries, code systems, and value sets.

RATIONALE

The health sector in Kenya increasingly implements independently developed Health Information Systems that employ various names, codes, or terms for the same clinical principles, this has led to a suboptimal sharing of health information. The MoH intends to implement a National Terminology Service to manage health care standards and definitions. The Terminology Service will provide a consistent specification for accessing and managing terminology content, and will enhance the value of electronic health records. The healthcare Information Systems shall be expected to capture clinical data in a structured and coded format to facilitate data exchange between Health Information Systems, epidemiological analysis, data quality, research, clinical decision support systems, administrative functions and any other system utilizing health data. These systems interrelate concepts of a particular domain and provide reference to related terms and possible definitions and codes. Therefore, in order to exchange structured or coded data, different external applications will be required to code and classify the data in the same way.

1.0. INTRODUCTION

1.1. Overview

The MoH takes lead in strengthening the health information ecosystem in Kenya by implementing information systems and collating information by optimizing its use for national decision-making in the health sector. There are numerous terminologies in the healthcare field for use in classifying and aggregating health data. These terminologies need to be visible to the health sector for standardized application and sharing of information through various data exchanges.

The purpose of this document is therefore to act as a guide for stakeholders in the health sector to maintain a central terminology service. The key features of terminology service shall include creation, updates, archival and removal of standards and definitions.

This document will be used by both the state and non-state players in the Kenyan health sector.

1.2. Scope

The scope of this document is to provide a governance framework for the implementation of the Kenya National Health Data Dictionary (KE-NHDD).

1.3. Document Review

This document shall be reviewed by an appointed National Health Terminology Service (NHTS) Management team every 3 years or when a need is identified.

1.4. Kenya health national data dictionary (KE-NHDD)

The KE-NHDD is a terminology service that is a central source that uniquely identifies standards and definitions including terminologies, ontologies, dictionaries, code systems and value sets. It enables the building and management of terminology content to ensure that all records are managed with correct encoding and optimal interoperability.

A health terminology service contains concepts mapped to international standards such as International Classification of Diseases (ICD-11), Logical Observation Identifiers Names and Codes (LOINC), Systematized Nomenclature of Medicine (SNOMED CT) and **Global Standards 1**(GS1).

A health terminology service actualizes semantic interoperability, enabling accurate, consistent reporting and aggregation of health data. It also facilitates the accurate exchange of information

among domains of the health sector, including labs, clinics, pharmacies, hospitals, and imaging centers, which leads to improved patient care and decision making.

1.5 Objectives of the Terminology Service:

1. To enable comparison and integration of data.
2. To provide basis for interoperation among systems, applications and institutions
3. To facilitate Electronic Health Record (EHR) sharing and portability

1.6 Principles of the Health Sector Terminology Service:

- Form a basis of standards for comparisons for health data;
- Reduce ambiguity and increase clarity, which makes it an important factor in continuous quality improvement;
- Help people across various industries communicate more efficiently;
- Help in consistent analysis of healthcare resource utilization for more informed decisions about resource allocation;
- Help to standardize evaluation of treatment plans that affect health outcomes;
- Promote quality of care by providing a link to various medical knowledge and current publications that can be used for outcome measurement through health services research;
- Controlled vocabularies between information systems enable decision support programs use at the point of clinical care. This is to achieve optimal integration of patient information from electronic health records to the diagnostic expert system;
- Exchange data between health information systems through the concept of Semantic Interoperability; the possibility of different systems to understand the information they are processing through the use of codes of health data terminologies.

1.7 Base Health Domains of the Terminology Service:

Base Sub-sources	Health Domains Supported
Systematized Nomenclature of Medicine -- Clinical Terms (SNOMED)	Electronic exchange of clinical health information
Logical Observation Identifiers Names and Codes (LOINC)	A standard for identifying and reporting laboratory investigations

International Classification of Diseases 11th Revision (ICD-11)	Classification of Diseases
ICPC-3 International Classification of Primary Care - Routledge	General/Family Practice and primary care,
Anatomical Therapeutic Chemical (ATC)	Classifies the active ingredients of drugs according to the organ or system on which they act and their therapeutic, pharmacological and chemical properties.
GS1 Global Data Dictionary (GDD)	Standards that define unique identification codes (called GS1 identification keys) which may be used by an information system to refer unambiguously to a real-world entity e.g. barcode, radio frequency identification tags

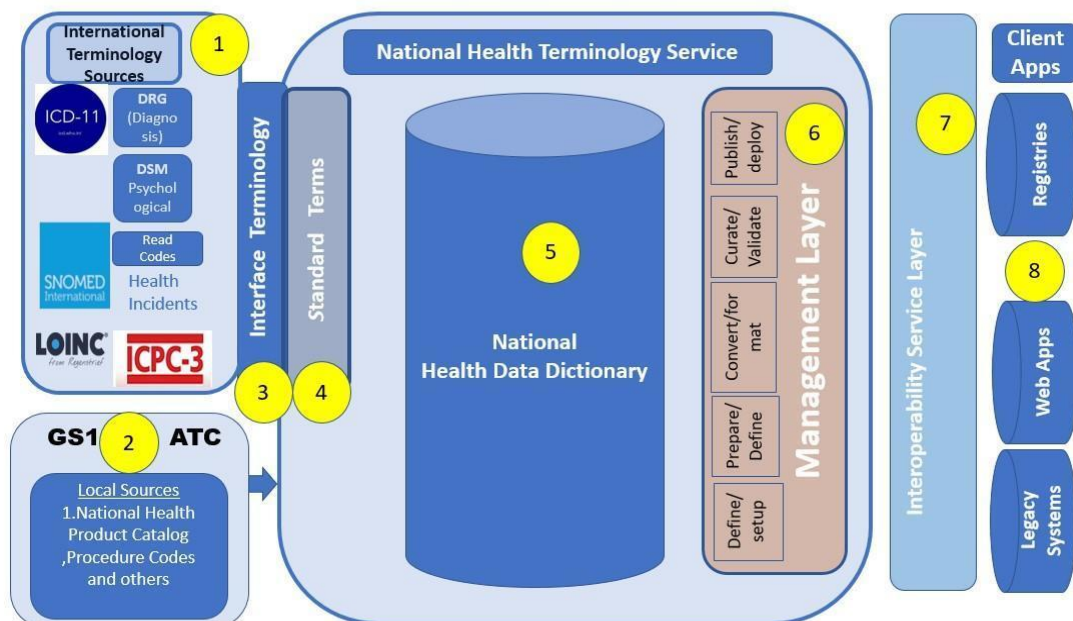
1.8 Benefits of Ke-NHDD

- **Interoperability:** The use of the same standardized data terminology is an enabler of easier health data exchange and sharing across different digital health solutions.
- **Clinical Decision Support:** Accurate and standardized data terminology is essential for clinical decision support systems, this strengthens quality of care delivered at health care provision.
- **Data Reporting:** Standardized data terminology enhances the accuracy and reliability of data for analysis, the analyzed data enables better-informed decisions.
- **Regulatory Compliance:** The use of standardized data terminology for data recording and reporting makes the adherence to regulations easy. The health data dictionary helps health stakeholders adhere to data-related regulations by documenting how data is defined, used, and protected.
- **Reduces the risk of errors:** Standardized data terminology enhances the accuracy and reliability of data reducing the risks of errors in communication. Errors in healthcare have catastrophic repercussions on the quality of healthcare delivered
- **Improves productivity at several levels:** Having a shared and approved glossary of terms significantly reduces the time needed to dedicate to research and translating or creating content.
- **Ensure accuracy and consistency:** A health data dictionary provides a comprehensive and structured overview of data elements, including their names, descriptions, data types, and relationships. This helps all health stakeholders understand the meaning and purpose of each data element, fostering better communication among team members.

- **Promote knowledge transfer and client satisfaction:** Clear terminology promotes effective knowledge transfer and sharing within the systems, facilitates the creation of user-friendly documentation for system users, increases customer satisfaction because the information is clear, which in turn reduces the number of support calls and customer complaints.
- **Data Quality Improvement:** By documenting data constraints, validation rules, and data integrity constraints, a health data dictionary helps identify and rectify data quality issues. This ensures that data collected is accurate, complete, and reliable.
- **User Training and Onboarding:** A health data dictionary serves as a valuable resource for training and onboarding new staff. It provides a centralized reference point for understanding the structure and meaning of the health data used in healthcare.

2 Kenya National Health Data Dictionary Architecture

The Kenya National Health Data Dictionary Architecture is a comprehensive and dynamic framework that supports the standardization, integration, and secure exchange of health data in the healthcare landscape in Kenya. This architecture plays a pivotal role in harmonizing and integrating health information systems, ensuring seamless communication and interoperability among various healthcare systems.



ARCHITECTURE DIAGRAM DEFINITION:

Number 1: International terminology sources - This refers to a list of international dictionaries and classifications that are integrated into the National Health Terminology Service through the interface terminology. Some of these as highlighted in the diagram are ICD-10/11, SNOMED, LOINC etc

Number 2: Local and Other sources - This consists of a combination of local and international non clinical dictionaries that are incorporated into the Kenya National Health Data Dictionary (KE-NHDD). Examples include National health product catalog, KMHFL, GS1 and ATC

Number 3: Interface Terminology - This refers to a set of clinically relevant terms mapped to the industry standard administrative and clinical code sets. In the Kenyan context CIEL is being used as the interface terminology.

Number 4: Standard terms - This refers to the final standard terms that are derived through the CIEL for addition into the KE-NHDD.

Number 5: National Health Data Dictionary - This is the final database of standardized terminologies that is compiled from the various sources for consumption by the client systems to help on data sharing by acting as the central source of health terminologies.

Number 6: Management layer -This refers to the process of managing new and old terminologies within the National Health Terminology Service .

Number 7 : Interoperability service layer - this provides a single point of entry for client systems into the KE-NHDD, this allows client systems to consume the national dictionary in their operation

Number 8: This refer to all the systems that are utilizing the KE-NHDD

3. Kenya National Health Data Dictionary (KE-NHDD) Governance Structure

The health information system sub-sector is guided by the Kenya Health Policy 2014-2030 which is oriented towards promoting the use of health information systems to improve health outcomes and health system performance. The policy recognizes the critical role of reliable and timely health information in effective decision-making, planning, and management of the health system at all levels. The policy also emphasizes the importance of interoperability and integration of health

information systems across different levels of the health system to ensure the seamless sharing of health information.

The development of KE-NHDD Data Governance is one of the key enablers to achieving the aspiration of the Kenya Health Policy . The KE-NHDD Data Governance will give guidance on the overall management of the availability, usability, integrity and security of data as consumed by the different digital health solutions in Kenya. The KE-NHDD Data Governance will give guidance on the operationalization and maintenance of the KE-NHDD in the health sector.

The KE-NHDD is a standardized and organized collection of terms and definitions used to describe and represent health-related data in Kenya. It plays a crucial role by providing a common language and structure for the exchange, storage, and management of health information in Kenya digital health systems. It helps ensure consistency, interoperability, and accuracy in healthcare data collected in the different digital health solutions. It enables the health sector to have a more easily integrated and synchronized systems towards the common national health superhighway

The KE-NHDD is a free resource, public facing and is for users to adopt, uptake and utilize. The use is via downloading of concept files or integration via API

Terminology Service Governance

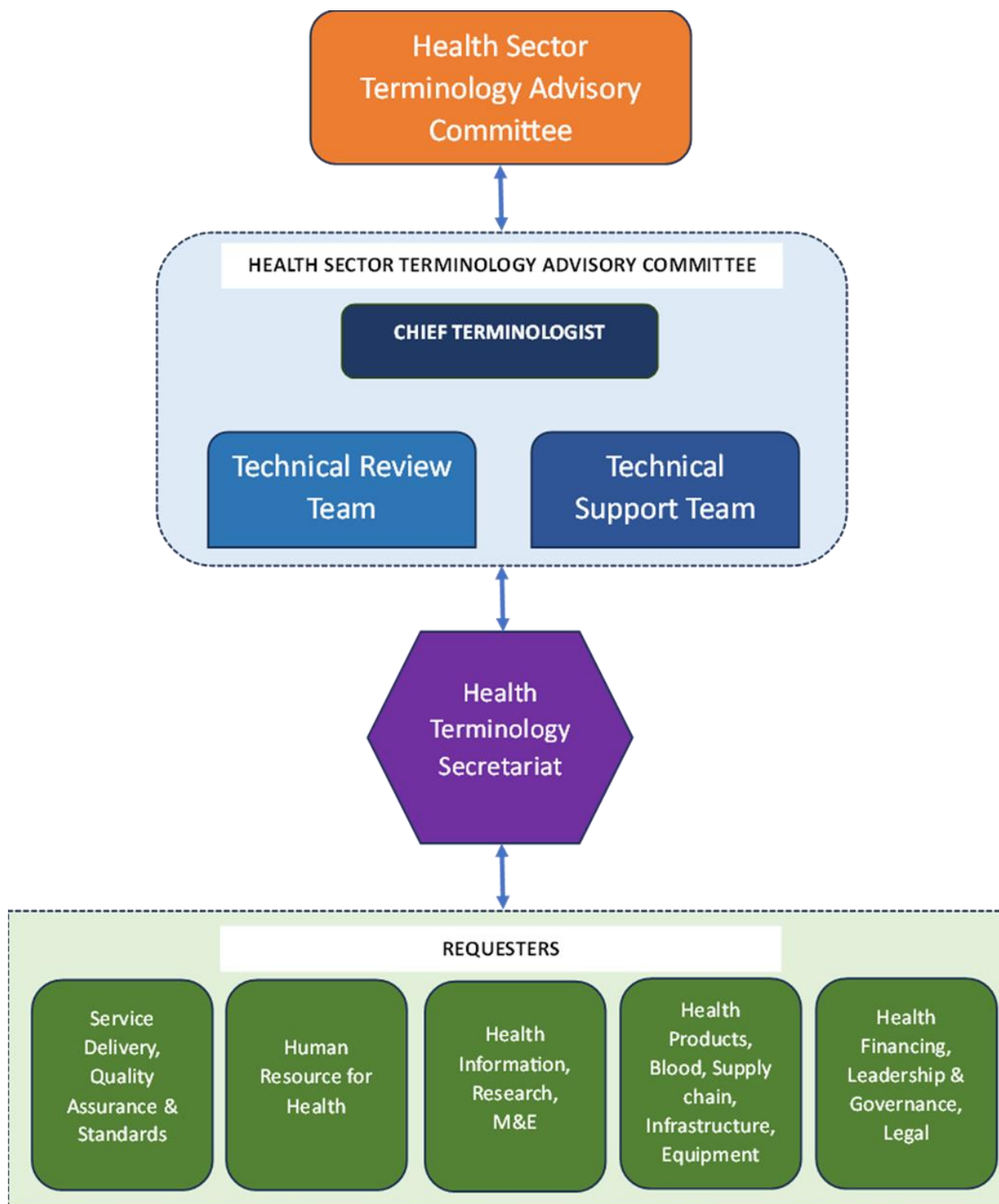
Terminology Service governance is the process of managing collecting, creation, definition, mapping and retiring of terminologies.

Objectives of Terminology Service Governance

- To support data exchange between systems seamlessly
- To provide uniformity and conformity

The terminology service governance structure provides a systematic framework for managing the Kenya National Health Data Dictionary

Organizational structure



4. Roles and Responsibilities

4.1 Health Sector Terminology Advisory Committee

The advisory committee will consist of the DG who is the chair, Head Division of Health Informatics or head division of digital health who will be the secretary and other co-opted members who will comprise of the following: Regulatory board member, Council of Governance, Academia, DPHK, Researcher, MOIC&DE, Kenya Health Federation and implementing partners.

Roles and Responsibilities

- Ratification of all terminology services documents and approved of the request

4.2 Chief Terminologist

The Chief Terminologist will be the Head of the Division responsible for the implementation of Health Information Systems at the MoH or his/her designee as maybe guided by the existing government structures and will be expected to have:

- a strong understanding of all Interface and reference terminologies.
- demonstrated skill in translating healthcare realities into concepts and coded content.
- expertise in making content available for provider use.
- understanding of how various health disciplines function in the real world.
- understanding of the process for creating and deploying standards used in clinical settings

Roles and Responsibilities:

- Approves new concepts for publishing after their review by the Technical Support Team and the Terminology Review Team.
- Retires concepts or reference Terminology Services.
- Acts as the steward and champion for terminology content.

4.3 Terminology Review Team

This comprise of a comprehensive team of Subject Matter Experts that provide domain-specific contribution in line of their area of expertise

Roles and Responsibilities:

- Evaluating prospective Interface and Reference Terminologies
- Reviewing and recommending concepts for approval by the Chief terminologist.
- Recommending concepts for retirement by the Chief Terminologist.
- Selects, validates and curates terminology content within the Terminology Service.

4.4 Technical Support Team (Help Desk)

This comprise of trained developers and HIS technical officers with ;

- knowledge of system quality practices and any applicable regulations for managing digital health applications and more broadly, Information, Communication and Telecommunications in the health sector. electronic records.
- knowledge of applicable data privacy, security and management regulations and practices.

- knowledge of good practices for applicable network and hardware operation and management.

Roles and Responsibilities:

- Manage the technical infrastructure including the hardware and software for the Terminology Services Solution.
- Develop a roadmap towards full adoption of cloud computing infrastructure and services for the KE-NHDD
- Design and implement appropriate hardware and network privacy controls.
- Work with the Chief Terminologist to establish appropriate system backup and recovery plans.

4.5 Health terminology service secretariat

- Receive all terminologies service request
- Review and validate new concept
- Feedback on concept approval and retirement
- Maintain registry of users
- Organize for meeting
- Monitor the utilization
- Help desk

4.6 Definer /Requester

These are individual users or organizational representatives responsible for utilization of KE-NHDD and submission of requests for creation or review of existing concepts.

Roles and Responsibilities:

- Searching and utilization of existing concepts
- Submission of requests for review of existing concepts or creation of new concepts and submission for review reviewer and approval through the Technical Support Team.
- Submitting requests for retirement of existing concepts.

5 Standard Operating Procedures for the Kenya National Health Data Dictionary

Introduction

- The target users of the KE-NHDD are the terminology service management team, the governance and technical oversight team, the SMEs, system administrator

Objective

- To provide SOPs for implementation of KE-NHDD

SOP for Concept creation request procedure

Step 1: Search for a concept in the NHDD

Step 2: Identify and document missing concepts

Step 3: Submit the request through the **terminology request portal**

SOP for Adding new Terminologies/Concepts

The process of creating a new term entry commonly includes these steps:

1. Proposal
2. Verification
3. Validation
4. Release
5. Addition of equivalents in other languages

A term life cycle includes the creation and validation of new entries, evaluation of synonym sets and assignment of status values to rank terms according to style and usage objectives, and maintenance tasks such as adding complementary information and merging doublettes. Terms that are incorrect, invalid or obsolete are not removed from the termbase; rather, they are identified as such by using a data category that indicates their status as deprecated or no longer used.

SOP for Updating/Editing existing terminologies

Updating or editing of existing terminologies shall be done through a defined process as defined below:

- Proposals for updating or adding terms definitions and acronyms will be submitted using a defined template form which will be an input paper to all concerned teams
- The proposal for addition or amendment will be assessed and approved by the System Management Team;
- The Secretariat will maintain a list of proposed and approved changes/ additions;
- The Terminology Management Team will meet on a quarterly basis to discuss, review and approve TS changes;
- The Technical Working Group (TWG) Secretariat will do actual edits of the TS

SOP for Retiring/Archiving terminologies

- Removed terms will be relocated into a category “Historical Terms” rather than deleted for archiving;
- The basic structure of the TS will be retained and adjusted as required.

SOP for Account Management

Ke-NHDD is a free resource with open public access and consumers can utilize either through downloading concept files or integration.

Accounts are only applicable to the technical management team.

Purpose

Provides the procedure for account creation of an Organization including onboarding, account creation and offboarding of organizations . the users with the account will only be the management team.

Responsibilities

- Chief Terminologist - on-boards and off-boards organizations
- Organization - submits application for onboarding onto NHDD
- Reviewers - recommends organizations for off-boarding to the Chief Terminologist

Procedure

- The Organization submits application using the standard template to the Chief Terminologist
- The Chief Terminologist reviews the application
- The Organization is onboarded to the KE-NHDD
- The Organization manages user accounts
- The Chief terminologist shall on/offboard organizations which are recommended for by the reviewers. Such Organization shall fill on/offboarding standard template

SOP for Concept Management

Purpose

Provides the procedure for users to access the NHDD, search, update, map and retire concepts

Responsibilities

- Chief Terminologist - approves, publishes and retires concepts
- Reviewers - review and recommend concepts for approval and retirement by the Chief terminologist.
- Users
- Creation of new concepts and submission for review by the Reviewer and Approval by the Chief Terminologist.
- Submitting requests for review of existing concepts by the Reviewers.
- Requests for retirement of existing concepts

Procedures

- Importing a Concepts
- Concepts Coding
- Creating a Concepts
- Updating a Concepts
- Retiring a concepts
- Mapping a concept
- Resolving conflicts in concepts

SOP for Concept Utilization

Purpose

Provides SOPs for utilization of concepts in KNHDD

Responsibilities

- Support team - Manages the technical infrastructure including the hardware and software for the Terminology Services solution. The team will comprise individuals who provide support directly to users of KNHDD
- Users - individuals or organizations contributing to or utilizing KNHDD

Procedures

- Searching a concept via NHDD browser
- Integration to NHDD via Application interface
- Managing national product catalog
- Managing terminology sources

SOP for Approval of Concept Publishing

Purpose

Outlines the SOP for publishing concepts in the KE-NHDD by the Chief terminologist

Responsibilities

The chief terminologist of the KE-NHDD will be responsible for concept publication

Procedures

- 1) The chief terminologist shall review the submissions from the terminology review team.
- 2) The chief terminologist shall then start the publication by in the following steps:
 - Establish the nature of the data i.e class e.g finding/diagnosis/drug e.t.c
 - Enter the data type e.g boolean, numerical, date, time e.t.c
 - Enter the language of language of the new concept
 - Enter the concept itself
 - Enter the description of the concept
 - Enter the associations
 - Enter mappings of the concept
 - Link with any other existing collection

SOP for Approval of Concept Retirement

Purpose

Outlines the SOP for retiring concepts in the KE-NHDD by the Chief terminologist.

Responsibilities

The chief terminologist of the KE-NHDD will be responsible for concept retirement.

Procedures

1. The chief terminologist shall review the submissions from the terminology review team.
2. The chief terminologist shall confirm that the concept qualifies for retirement based on end-use / duplication.
3. The chief terminologist shall then remove the concept from the KE-NHDD and move it to the archive folder.
4. The concepts in the archive shall be held for the period prescribed.
5. Enter the retired concept in the retired concepts list.

SOP for Concept creation procedure

Step 1: Review the terminology request send by requester through the request portal

Step 2: Search for a concept in the NHDD

Step 3: TST Add the concept to the temporally holding branch within the KHDD

Step4: TRT reviews the concepts within the temporally repo and provide feedback to the TST

Step 5: TST publishes the approved concepts into the public KHDD

6. ANNEX

Figure 1: Role and responsibilities

	Responsibilities (what)	Suggested Actors (Who)
Health Sector Terminologies Advisory Committee (HSTAC)	<ul style="list-style-type: none"> ● Ratification of all terminology services documents and approved request 	<ul style="list-style-type: none"> ● Chairman - DG ● Secretary - Head Division of Health Informatics ● Regulatory board member ● Council of Governance ● Academia ● DPHK ● Researcher ● MOIC&DE ● Kenya Health Federation ● implementing partners ???
Chief Terminologist	<ul style="list-style-type: none"> ● Approves of new concepts for publishing after their review by the Technical Support Team and the Terminology Review Team. ● Retires concepts or reference Terminology Services. ● Acts as the steward and champion for terminology content 	<ul style="list-style-type: none"> ● Head division health informatics / Head division digital health
Health Terminology Service Secretariat	<ul style="list-style-type: none"> ● Receive all terminologies service request ● Review and validate new concept ● Feedback on concept approval and retirement ● Maintain registry of users ● Organize for meeting ● Monitor the utilization ● Help desk 	HIS ICT
Technical review team	<ul style="list-style-type: none"> ● Evaluating prospective Interface and Reference Terminologies ● Making data modeling decisions ● Developing data mappings. ● Reviewing and recommending concepts for approval by the Chief terminologist. ● Recommending concepts for retirement by the Chief Terminologist. ● Selects, validates and curates terminology content within the Terminology Service 	MoH- HIS technical team CoG Programs Partners Private sector Academia
Technical support team	<ul style="list-style-type: none"> ● Manage the technical infrastructure including the hardware and software for the Terminology Services Solution. ● Develop a roadmap towards full adoption of cloud computing infrastructure and services for the KE-NHDD 	Software Developers HIS technical team Terminology experts

	<ul style="list-style-type: none"> • Design and implement appropriate hardware and network privacy controls. • Work with the Chief Terminologist to establish appropriate system backup and recovery plans 	
Requestor through domains and subdomains: <ul style="list-style-type: none"> • Service delivery quality assurances • Lab • HTP, blood and supply chain • Infrastructure and equipment • Health financing, leadership, governance and legal • Human resource 	<ul style="list-style-type: none"> • Submission of requests for review of existing concepts or creation of new concepts and submission for review and approval through the Technical Support Team. • Submitting requests for retirement of existing concepts. 	Organizations Institution Entities

Annex: 2 Procedure for request for addition of new Concepts

Concept request form

Concept request form shall be completed by the requestor with the following details:

1. Requestor details
2. Concept name
3. Program Area
4. Synonym
5. Classification of the variables by Domains
 - a. Services delivery, quality assurance and standard
 - b. Human resource for health
 - c. Health information research and M&E
 - d. Health product, blood, supply chain infrastructure and equipment
 - e. Health financing, leadership, governance and legal
6. Description
7. Data type (text,number, boolean, document, none etc)
8. If it is found in any external references (**OPTIONAL**)

Form link

<https://forms.gle/QYErq7Em4cBBP4eL9>

Governance

1. Requester
This consists of the following organizations, institutions and entities in need of new concepts
2. Committee
Roles

- To review, approve, recommend and retire concepts in accordance with defined rules.

Composition of the committee

- ❖ Representative from key stakeholders using KNHDD
- ❖ Maximum 9 members quorum of 7
- Members should consist of
 - Each member should be subject matter expert in health data dictionary

APPOINTED MEMBERS

- 1 Division Digital health
- 1 Division of health informatic (**Chair**)
- 1 Division of ICT (**Secretary**)
- 2 Implementing and developing partener
- 1 Nominee from KHF
- 1 FBO

CO-OPTED MEMBERS

- 2 Subject matter expert

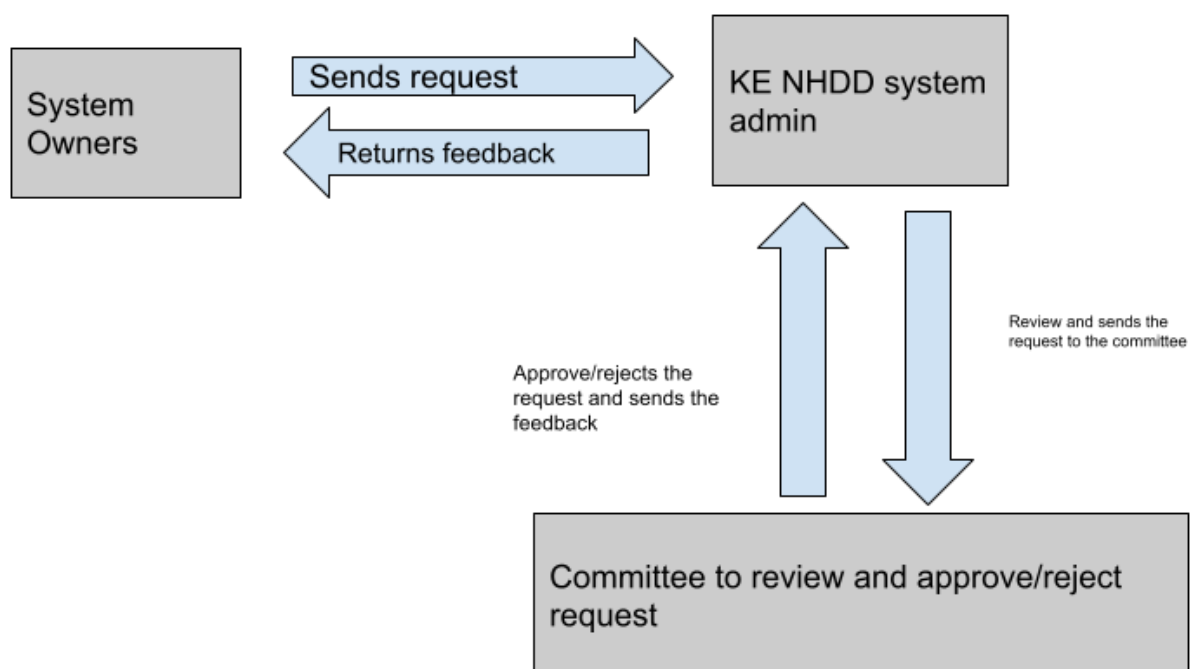
MOH **New Approval Form**

1. Evaluation status
2. Recommendation

System Admin

- Responsible for committing the committees recommendations onto the system

Request Workflow



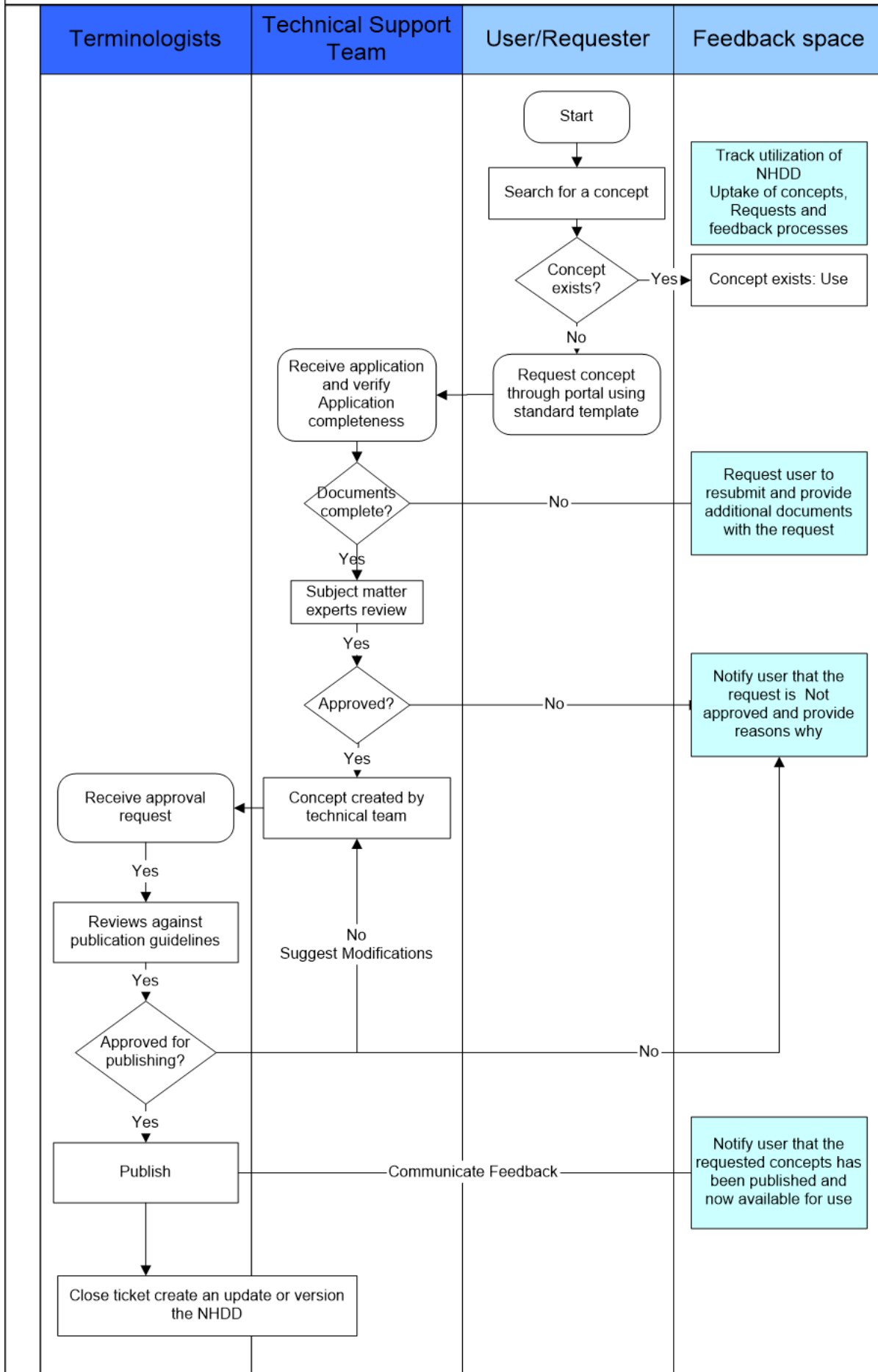
HOW TO ENGAGE SYSTEM OWNERS

System Owners

System owners are individuals, organizations, or entities responsible for the management, operation, and oversight of digital health solutions. The MoH (MoH) will be responsible for engaging the system owners to utilize the national health data dictionary. This role will involve several key responsibilities such as;

1. Engage all Stakeholders in the digital health solution space
2. Regularly publishing and introducing new concepts related to KeNHDD. T
3. Defining NHDD Subscription Requirements:
4. Periodic Compliance Assessments to evaluate the extent to which system owners adhere to the platform's standards and guidelines.
5. Running of a service desk for supporting the KE-NHDD
6. Carrying out periodic assessment of KE-NHDD maturity

Managing Concepts



The preferred should receive the request, generate ticket, track

User - Template created by tooling team

Request - form to be filled (Provide template)

Technical Support Team - SOP for searching teams to confirm non-existence, Roles and responsibilities

SMES - Terminology review criteria