



THE UNITED REPUBLIC OF TANZANIA

**MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER,
ELDERLY AND CHILDREN**

MONITORING AND EVALUATION STRATEGIC FRAMEWORK (MESF) 2020-2025

January, 2020



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Foreword

The Government of Tanzania aims to improve the performance of the health system as advocated in the Tanzania Development Vision 2025. Among other priorities, the vision, emphasizes on the need to improve the quality of life of Tanzanians as the country moves toward a vibrant and competitive economy.

The Ministry of Health, Community Development, Gender, Elderly and Children (MOHC DGEC) therefore plans to improve health sector performance through the implementation of the Health Sector Strategic Plan (HSSP) IV. To adequately implement the plan, the Ministry needs to develop a strategy to be used by stakeholders to ensure the use of quality data for decision making and accountability.

This edition of the Monitoring and Evaluation Strategic Framework (MESF) takes into consideration new M&E developments that have occurred since 2015. These include the development of the Digital Health Investment Roadmap (DHIR) in 2017 adoption and signing of the Health Data Collaborative (HDC) in November 2017 and the adoption of the national health data portal in 2018.

The strategy focuses on the need to strengthen implementation capacity in general and specifically to support initiatives for data quality, analyses, dissemination, and use.

Furthermore, it focuses on digitalizing facility and community-based data capture, improving surveillance and Civil Registration and Vital Statistics (CRVS), and coordinating surveys. It is the Ministry's expectation that stakeholders at all levels will use this strategy as a guide to achieving individual and collective M&E objectives.



Prof. Muhammad Bakari
Chief Medical Officer

Acknowledgments

The finalization and updating of the M&E strengthening framework was a process that involved several institutions and organizations that cannot all be mentioned by names. This strategy could not have been finalized if it had not been for the contribution of ideas from officials from the President's Office Regional Administration and Local Government (PORALG) and other ministries, departments and agencies, development and implementing partners, civil societies, and faith-based and private organizations.

I wish to commend to members of the M&E Technical Working Group (TWG) for overseeing the process of development of this strategy. I convey sincere appreciation to the Assistant Director, M&E section, Mr. Tumainiel Macha and the team of the Secretariat, led by Mr. Claud John Kumalija, for coordinating activities that led to the successful production of this strategy. Thanks to Prof. Daudi Simba and Prof. Mecky Matee, consultants from MUHAS; Mr. Sriyanjit Perera, Strategic Information Officer from the Centers for Disease Control and Prevention (CDC); Hellen Magige, M&E advisor from Management Sciences for Health (MSH); and Prof. Ties Boerma, former Head of M&E and Statistics Department, WHO headquarters and Ms. Irene Mwoga Strategic Information Officer, WHO Tanzania Country Office.

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Director, Policy and Planning Ministry of Health,

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Abbreviations and Acronyms

CDC	Center for Disease Control and Prevention
CHF	Community Health Fund
CHMT	Council Health Management Team
CHW	Council Health Worker
CRVS	Civil Registration and Vital Statistics
DDU	Data Dissemination and Use
DHIR	Digital Health Investment Roadmap
DHP	District Health Profile
DHS	Demographic Health Survey
DHIS	District Health Information System
DQA	Data Quality Assessment
DRM	Data Review Meeting
DSS	Demographic Surveillance System
eLMIS	electronic Logistics Management Information System
	Government of Tanzania Health Operation Management Information system
GoT-HOMIS	
HCW	Health Care Workers
HDC	Health Data Collaborative
HDSS	Health Demographic Surveillance Sites
HFR	Health Facility Registry
HIV/AIDS	Human Immunodeficiency Virus (HIV)/ Acquired Immuno-deficiency Syndrome (AIDS)
HMIS	Health Management Information System
HOMIS	Hospital Management Information Systems
HF	Health Financing
HR	Human Resource
HRHIS	Human Resource for Health Information System
HSSP	Health Sector Strategic Plan
ICT	Information Communication Technology
IVD	Immunization and Vaccine Development
eIDSR	electronic Integrated Disease Surveillance and Response

KII	Key Informant Interview
LGA	Local Government Authority
M&E	Monitoring and Evaluation
MDA	Ministries, Departments, and Agencies
MDG	Millennium Development Goals
MPDRS	Maternal and Perinatal Death Surveillance
MESI	Monitoring and Evaluation Strengthening Initiative
MoHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
MoCLA	Ministry of Constitution and Legal Affairs
MSH	Management Sciences for Health
MTUHA	Mfumo wa Taarifa za Uendeshaji wa Huduma za Afya
NAHEPO	National Health Policy Forum
NBS	National Bureau of Statistics
NEC	National Electoral Commission
NHIF	National Health Insurance Fund
NHO	National Health Observatory
NHP	National Health Policy
NIMR	National Institute for Medical Research
NIDA	National Identification Authority
NACP	National Aids Control Program
NMCP	National Malaria Control Programme
OPRAS	Open Performance Review and Appraisal System
NTLP	National Tuberculosis and Leprosy Programme
ODK	Open Data Kit
POPSM	President's Office Public Service Management
PORALG	President's Office Regional Administration and Local Government
PST	Primary Sensitivity Testing
RBF	Result-Based Financing
RCH	Reproductive and Child Health
RHMT	Regional Health Management Team
RITA	Registration Insolvency and Trusteeship Agency

RMNCAH	Reproductive, Maternal, Newborn, Child and Adolescent Health
SARA	Service Availability and Readiness Assessment
SAVVY	Sample Vital Registration with Verbal Autopsy
SRA	Star Rating Assessment
SPA	Service Provision Assessment
SWAP	Sector Wide Approach
TWG	Technical Working Group
TAIS	Teku Academic Information System
TIKA	Tiba Kwa Kadi
UNICEF	United Nations Children's Fund
UCSF	University of California, San Francisco
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Overview

The Health Sector M&E TWG is working to produce a long-term strategic plan for M&E. The M&E TWG envisions a strategic plan that informs prioritization and discussions for HSSP IV and serves as the coordinating plan for all stakeholders contributing to M&E developments related to the health sector for the period 2020-2025.

This strategy update and finalize the draft M&ESI II (2015–2020) and put milestones up to year 2025. In addition to review and updating the previous strategy, this strategy considered new developments in M&E that occurred since the commencement of M&ESI II in 2015. These include the development of the Digital Health Investment Roadmap (DHIR) in 2017, adoption and signing of the Health Data Collaborative (HDC) in November 2017 and the adoption of the national health portal in 2018.

This document is meant for stakeholders supporting or implementing M&E activities directly or indirectly. These include government Ministries Departments and Agencies (MDAs), Development and Implementing Partners; Faith-Based Organizations, Non-governmental Organizations, and Private for Profit Facilities. MDAs include the MOHCDGEC the policy maker and PORALG the implementer along with other ministries and agencies involved in M&E, include the National Bureau of Statistics (NBS), Registration Insolvency and Trusteeship Agency (RITA), the Ministry of Finance and Planning and the President's Office Public Service Management (POPSM).

A participatory approach was used to review the M&ESI II strategy that involved review of documents, consultations, and workshop. The strategy will be implemented through the following steps:

1. Capacity Strengthening

Vision: There is capacity at all levels to implement M&E (to collect, analyse, disseminate, and use data) for evidence-based decision making and accountability.

Strategic Objective 1.

Strengthen the capacity for implementing M&E at all levels

- 1.1 Strengthen leadership and coordination role
- 1.2 Mobilize financial resources for implementing M&E at all levels
- 1.3 Advocate for and support inclusion of M&E competencies
- 1.4 Zonal training centres provide certification based on M&E short-term training

2. Routine Health Management Information System (HMIS): Clinical and Administrative Data

Vision: Quality and reliable data from routine health delivery systems (HMIS and administrative) are available and accessible to stakeholders at all levels for synthesis of information and use.

Strategic Objective 2.

Improved efficiency of HMIS and processes to meet all health sector M&E requirements

- 2.1 Align the processes of developing and reviewing indicators and of data collection to reduce burden on health workers
- 2.2 Ensure all programs data requirements are incorporated during the digitalization of health services delivery processes at health facilities (HFs) and community to reduce workload for health workers
- 2.3 Support procurement of data collection materials and equipment

3. Data Quality

Vision: By 2025, the Health Sector has a consistent approach to data quality assessment and interpolation and uses a standard measurement of data quality at all levels.

Strategic Objective 3.

Strengthen accuracy, completeness, and timeliness of data.

- 3.1 Institutionalize HMIS data quality improvement activities in existing mechanisms (Star Rating Assessment [SRA], result-based financing [RBF])
- 3.2 Strengthen the M&E framework that promotes, assesses, and tracks data quality in the health sector, including data quality definition, data quality assessment (DQA) methodology, tools, and uses that meet the M&E TWG requirements (internal and external stakeholders)
- 3.3 Motivate data quality improvement by incentivizing health care workers (e.g., publishing DQA results, incorporating DQA results into RBF)

4. Data Dissemination, Use, and Evidence-Based Decision Making

Vision: By 2025, the health sector is cultured with evidence-based decision making that continuously improves provision of quality services to achieve better health outcomes.

Strategic Objective 4.

Strengthen capacity for data analysis, dissemination, and use for evidence-based decision making and accountability

- 4.1 Strengthen policy, guidelines, and legal frameworks that describe roles and responsibilities to facilitate data use and accountability by all key actors
- 4.2 Strengthen data dissemination and use (DDU) capacity for all health sector stakeholders to ensure regular detailed analysis and interpretation
- 4.3 Improve coordination of DDU systems, activities and stakeholders

5. Surveillance

Vision: The health sector has a strong demographic and disease surveillance (sample vital registration with verbal autopsy [SAVVY], demographic surveillance system [DSS], HIV/AIDS, malaria) data collection system that can provide community-based health data

Strategic Objective 5.

Surveillance activities implemented and reports released according to five-year surveillance plan

- 5.1 In collaboration with information communication technology (ICT) units, expand the electronic integrated disease surveillance reporting (eIDSR) scope to include tracking community based mortality data
- 5.2 Support eIDSR to be implemented in all regions in the country
- 5.3 Strengthen disease-specific surveillance systems to collect important data for monitoring national programs (e.g., surveillances HIV/AIDS, case

detection and drug resistance in TB, Maternal and Perinatal Death Surveillance and Reporting [MPDSR] in Reproductive and Child Health (RCH)

6. CRVS and SAVVY

Vision: The health sector continuously improves community data, including births, deaths, and causes of death, while strengthening collaboration with RITA to ensure that at least 50% of all births and deaths are registered with civil authorities by 2024.

Strategic Objective 6.

Improve registration of births and deaths in Tanzania in collaboration in the Registration Insolvency and Trusteeship Agency (RITA) to align with DHIR 2017–2023

- 6.1 Collaboration among RITA, MOHCDEGEC, and PORALG in conducting community based data collection activities

7. Population and Facility Surveys

Vision: Tanzania maintains a costed 10-year population and facility health survey plan that is integrated with the national statistics plans and includes specific details on content, funding, and execution, and surveys are implemented according to plan using global standards.

Strategic Objective 7.

Coordinated approach to facility surveys and operational research across ministries, departments, and agencies (MDAs) and timely dissemination of results and sharing of survey data sets

- 7.1 Coordinate support for review of indicators and methods and implementation plans for the surveys
- 7.2 Coordinate support on health systems research to address M&E operational and implementation bottlenecks
- 7.3 Conduct in-depth analyses based on the surveys and other sources and use findings to obtain nationally representative evidence on population health status
- 7.4 Create a forum to conduct in-depth analyses and provide nationally representative evidence on community health status and vital statistics

8. Support Information Systems Integration and ICT Infrastructure for Improved M&E

Vision: The Tanzania health sector has cost-effective, flexible, reliable, scalable, sustainable, and integrated e-health infrastructures that support integrated M&E.

Strategic Objective 8. Support development of the centralized electronic Medical Record (eMR) software for routine data system and ensure all stand alone modules are linked through interoperability

- 8.1 Support development of national eMR, data warehouse and a user friendly decision making data platform
- 8.2 Support expansion and use of mobile technologies and Internet-based information systems to improve health data management and use
- 8.3 Support mobilization of funding to digitalize, include M&E capacity building

1.0 Introduction

1.1 Health Sector M&E Situational Analysis

Efforts by the Government of Tanzania to improve performance of the health system and public health care delivery is evidenced in the adoption of the Tanzania Development Vision 2025. The vision highlighted a priority agenda that includes improving quality of life; continuing to maintain peace, stability, and harmony; attaining good governance and rule of law; and having an educated and learning population in a country with a vibrant and competitive economy. -

To translate the Vision 2025, the MOHCDGEC and development partners have been developing a number of policies, strategic frameworks, and guidelines to improve health system performance. These policies include the long term Primary Health Services Development Programme 2007–2017, the medium-term HSSPs, and specific strategies such as the M&E strengthening initiative.

The Health Sector M&E Technical Working Group (M&ETWG) was formed to spearhead the development of the strategic plan for M&E and coordinate its implementation. One of its initial achievements was to oversee the development of the M&E strategy to monitor targets set for HSSP III (2009–2015) and later support the strategic planning process in the development of HSSP IV (2015–2020) and meet its monitoring needs. Through M&ESI, District Health Information System (DHIS2) was developed and disseminated. Health workers at the national, regional, and district levels were trained on how to use the software.¹

In line with HSSP IV, the MOHCDGEC developed M&ESI II to address the remaining M&E gaps and challenges and to further improve measurement and accountability in the health sector. The focus of M&ESI II was to continue integration of national programs into the DHIS2 data warehouse, improve data quality, increase accessibility and use of health data for evidence-based decision making and mobilizing sustainable financing for M&E.

Through M&ESI II, DHIS2 integrated some of the major national programs such as National AIDS Control Program (NACP), National Malaria Control Program (NMCP), and National Tuberculosis and Leprosy Program (NTLP) by harmonizing indicators and data collection tools. The web-based DHIS2 and the HMIS web portal were developed as part of the efforts to strengthen M&E, with the potential to establish a data warehouse for the health sector.

The introduction of the DHIS2 central data repository has also facilitated integration of reporting systems for disease-specific programme into DHIS2

and interoperability with other health information systems including the Health Facility Registry (HFR), the Human Resources for Health Information System (HRHIS) and the electronic Logistics Management Information System (eLMIS).

The country has a well-established system of sentinel surveillance to assess performance of some national programs, and regular surveys are conducted to assess the status of and trends in development, demography, poverty, health, and social well-being. Research findings from research and academic institutions and national reports generated through commissioned reviews are becoming more available. With coordinated efforts, these data sources have the potential to further improve the M&E system in the country.

Despite considerable achievement in the implementation of M&ESI II, there are a number of challenges that hinder progress toward achieving its ultimate goal. While through DHIS2 routine data have been made available at the district, regional, and national levels, the use of data for decision-making among members of Council Health Management Teams (CHMTs) and Regional Health Management Teams (RHMTs) remains a challenge. There is a need to establish the reasons for and how best to institutionalize capacity for data analysis and use of the available data. This includes gender and age disaggregation of service indicators to address equity gaps and workload indicators to rationalize Human Resource (HR) deployment and motivation.

Table 1: SWOT analyses of the health monitoring and evaluation system in the country

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> Government commitment to M&E evidenced by financial and HR investment. 	<ul style="list-style-type: none"> Fragmentation in efforts to support data collection, analysis, dissemination, and use. Numerous initiatives are implemented throughout the country to strengthen M&E. However, most of these efforts are scattered and piecemeal.
<ul style="list-style-type: none"> The national health policy (NHP) and HSSP IV emphasize the importance of M&E in the health sector. 	<ul style="list-style-type: none"> Existence of parallel HIS with national programs running their own reporting systems.
<ul style="list-style-type: none"> Existence of an established structure coordinating implementation of M&E interventions under the Sector Wide Approaches (SWAp) structure and the M&E and ICT TWGs. 	<ul style="list-style-type: none"> Inadequate motivation for collecting, analysing, and using data for decision making and accountability.
<ul style="list-style-type: none"> Development partners supporting the MOHCDGEC and PORALG in the implementation of M&E interventions. 	<ul style="list-style-type: none"> Weak routine community database system.
<ul style="list-style-type: none"> Availability of data through routine data systems and surveys. 	<ul style="list-style-type: none"> Inadequate capacity in numbers and skill mix to analyse and use data for decision making.
<ul style="list-style-type: none"> Government commitment to M&E evidenced by financial and HR investment. 	<ul style="list-style-type: none"> Coordination gaps between ministries and sections challenge the implementation of cross-sectoral and interdepartmental activities and compromise output.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Efforts to address capacity and coordination gaps–MOHCDGEC management has started efforts to strengthen the M&E and ICT sections. Efforts include reorganization of the section with clear instructions on issues/areas that need changes and employing additional staff for both the M&E and ICT sections. 	<ul style="list-style-type: none"> • Lack of support for some important areas in the M&E, including research.
<ul style="list-style-type: none"> • Academic and research institutions in the health sector are capable of supporting training in data collection, analysis, and use as well as operational research at various levels. 	<ul style="list-style-type: none"> • Inadequate mechanism to motivate health care workers to perform M&E interventions
<ul style="list-style-type: none"> • Availability of developing partners who are willing to invest in M&E interventions 	<ul style="list-style-type: none"> • Inadequate mechanisms to motivate health care workers (HCWs) to perform.

Opportunities	Threat
<ul style="list-style-type: none"> High commitment and support from the government leaders as the country moves towards the target to become a middle economic country 	<ul style="list-style-type: none"> Resource allocation to support M&E from government is not sufficient hence reliance on foreign support
<ul style="list-style-type: none"> Existence of M&E and ICT Technical Working Group (ICT-M&E TWG) Under Technical Committee of SWAP 	<ul style="list-style-type: none"> Some members from the government, funding and implementing partners, private, FBOs and CSOs are not active to attend ICT-M&E TWG Challenge of sustainability of M&E interventions due to dependency on development partners to fund M&E interventions
<ul style="list-style-type: none"> Availability of funding and implementing partners with interest to support M&E 	<ul style="list-style-type: none"> Funding and implementing partners are based on supporting vertical M&E interventions
<ul style="list-style-type: none"> Mushrooming of software to support country data computerization 	<ul style="list-style-type: none"> Selection of proper IT solution among mushrooming softwares
<ul style="list-style-type: none"> Existing of National M&E Strategic Framework and ICT roadmap to align all efforts in the country 	<ul style="list-style-type: none"> Existing Vertical program M&E strategies that does not link with the national framework
<ul style="list-style-type: none"> High support on technical assistance from Local Universities, Research institutions, International TAs and Private Sector. 	<ul style="list-style-type: none"> Existing of fragmented M&E technical assistance to support vertical health programs
<ul style="list-style-type: none"> Existing of well-defined HMIS at all levels 	<ul style="list-style-type: none"> Lack of ICT infrastructure and skills to most of health staff to operate computerization of health data at lower facilities
<ul style="list-style-type: none"> Existing of M&E staff at central level, HMIS Focal persons at regional and councils to support M&E services 	<ul style="list-style-type: none"> Lack of data management staff at hospitals and high volume health facilities to manage routine data collection

1.2 Developments and Achievements

Efforts to strengthen measurement and accountability for results received global impetus through public consultation that included extensive contributions from global and country experts and partners. The global Roadmap for Health Measurement and Accountability outlines a common agenda for the post-2015 era that aims to align countries in their efforts to attain the Sustainable Development Goals. It also sought to align partners along common priorities towards a shared strategic approach to support effective measurement and accountability systems. The roadmap aimed to address gaps that contribute to low data quality and inadequate data use. These include the use of paper-based systems and fragmented interventions in data collection, analysis, dissemination and use.

The global agenda advocated for member countries to have one plan, one budget, and one M&E framework to allow for interoperability; improve data quality, including data from non-health sectors (water and sanitation, nutrition and road safety); improve capacity for data analysis with a focus on equity disaggregated data; and build capacity for data use and dissemination using open data access to reinforce accountability.

In response to the global agenda, Tanzania, as a member state, adapted the roadmap considering local needs and demands. Some strategies and initiatives have been developed since then, including the Digital Health Investment Road Map (DHIR), the Health Data Collaborative (HDC) and the National Health Observatory (NHO). Since these strategies were built on existing strategies (i.e. M&ESI II and eHealth Strategy 2013–2018), they seem duplicative. This is perhaps due to overlaps caused by close relations and intertwining of the structures and functions of some of the entities that contribute to M&E strengthening.

Digital Health Investment Roadmap (DHIR): The MOHCDGEC with support from development partners, developed an investment roadmap in 2017 to provide a detailed implementation and costing plan for digitalizing the health sector. The roadmap aimed to increase investment in data systems and data use for evidence-based decisions by ensuring that managers can use data to identify and solve problems, measure performance, and allocate resources based on evidence.

The roadmap identified 17 priority investment recommendations based on existing strategies (HSSP IV, eHealth strategy 2013–2018, draft health M&E strategy, and draft DDU strategy). Priorities included improving data supply and demand by enhancing data quality, improving capacity for data use, and

scaling up eIDSR and the notification systems for birth and death recording. In addition, the roadmap planned to harmonize digital health systems and Develop health data warehouse to increase access to data and tools from different systems.

Health Data Collaborative (HDC): The UN Statistical Commission partners launched the HDC in 2016 with the aim to work together to maximize resources for measurement and accountability. The agenda was adapted in Tanzania by linking partners to support M&E priorities. This culminated in the signing of the HDC communiqué in November 2017, uniting stakeholders to make a commitment to investing in six priority areas that were based on the existing strategies.

Subsequently, the MOHCDGEC and partners would partly address the challenges resulting from having scattered investment. Through the communiqué, stakeholders agreed to support a common M&E framework based on national M&E priorities, to be led by M&E coordination mechanisms, and engage other key sectors. The agreed priority areas were addressing fragmentation, aligning indicators and data collection processes, harmonizing health facility assessments and surveys, joint and aligned investment in digital health information systems, strengthening capacity for analysis and use of data, and disseminating and improving data access investment.

National Health Observatory (NHO): This idea emanated from request made in the 62nd session of the regional committee of ministers of health in 2012 on the need for technical and financial support for member states to develop national health observatories. In 2018 the MOHCDGEC made a commitment to transform the existing HMIS portal to a national health portal.

The upgrading of the HMIS portal aimed to improve the availability and use of information and evidence on health status and trends and their social determinants for policy dialogue and to monitor and evaluate the implementation of national strategies and plans. The HMIS portal is limited in scope because it comprises only the HF-based data obtained through DHIS2, which are limited to key health indicators. The portal lacks in-depth analyses to provide a holistic picture of health sector performance and narratives to translate data for policy makers and public in general.

The observatory is designed to gather, analyze, synthesize, and share health data/information, thus serving as an integrated centre for accessing health data/information freely and serve as a platform for analysis and synthesis of health data and facilitate communication and advocacy through the production and publication of health information products. The observatory is intended to facilitate networking by stimulating collaboration and sharing of information and

best practices. By bringing together scattered information on health status, trends, and determinants, it is envisaged that the health observatory will be part of the solution to data fragmentation in HIS.

1.3 Policy Context

The MOHCDGEC has developed the HIS guidelines and Digital Health strategy which address most of the existing gaps in M&E strengthening Initiatives. Effective implementation of these documents will allow for the implementation of M&E activities.

Health Information System (HIS) guidelines: The HIS guidelines affirm the government's commitment to create one coordinated system for measurement and accountability in the health system. They outline the role of the M&E section for overall responsibility for monitoring and evaluating health sector performance. The guidelines assign responsibility for monitoring program-specific outcomes to respective programs and departments and agencies of the designate the MOHCDGEC to be responsible for its own data collection systems. It describes PORALG's role to coordinate implementation of M&E at the sub-national level, integrate data collection systems, and share reports and profiles.

Digital Health strategy: the MO- HCDGEC developed this strategy to ensure proper use of ICT services to achieve Ministry's vision of improving social well-being to contribute effectively to individual and national development. The strategy outlines the role of ICT in the health sector, which includes assisting and guiding the development, deployment, maintenance, and use of ICT infrastructure and services, including acquisition, service management, use of ICT, assessment of ICT performance and ensuring ICT security. RITA is mandated to be the custodian of birth and death registration in the country. Conforming to this, RITA is developing a Civil Registration and Vital Statistics (CRVS) strategy that seeks to establish a universal vital events registry that is simple, user-friendly, and cost-effective. This is to be achieved through designated health service points that will serve as an integrated service centre. The MOHCDGEC has a role to ensure that reporting of deaths and their causes adheres to international classification of diseases (ICD-10) standards.

The strategy aims to:

- Extend use of verbal autopsy and integrate it with the CRVS system
- Increase the number of new birth events captured annually by 20%
- Improve legal rights and privileges to all by establishing integrated service points at designated health facilities and simplify the birth and death registration process
- Strengthen CRVS coordination mechanisms by establishing committees at all levels that will link to avoid duplication
- Facilitate interoperable ICT infrastructure and systems with National Identification Authority (NIDA), National Electoral Commission (NEC), immigration, education admission, NBS, and health systems to obtain and publish reliable vital statistics
- Mobilize financial resource for the CRVS

2.0 Vision, Mission, and Goal of the MESF

Vision

A comprehensive Tanzanian platform for health information, evidence-based decision making, and accountability for results.

Mission

To facilitate the Improvement of data quality and enable analysis, dissemination, and use of data/information for evidence-based decision making and accountability.

Goal

To have data of good quality that are used to inform decision making and accountability.

Strategic Objectives

The strategic objectives outlined in this document are a synthesis of strategies set in M&ESI II and other priority setting documents, including HDC, the eHealth Strategy, and the DHIR. The strategies needs to be inclusive and not leave out interventions under implementation or planned by stakeholders.

However, priority for implementation in 2018–2024 is given to the six areas identified by the HDC because these represent the most recent stakeholder consensus. Strategic objectives are arranged according to technical areas (routine data, DSS/CRVS, and survey) and areas of priority for stakeholders (capacity strengthening, data quality, and DDU).

The following sections describe the situational analysis, five-year vision, HSSP IV priorities, objectives and outcomes, and proposed activities and outputs for each functional area.

1. Capacity Strengthening Situation

The MOHCDGEC is responsible for monitoring the health status of the people and health services in Tanzania. This responsibility is vested in the M&E section. In the era of digitalization, the M&E section cannot perform effectively without the use of ICT. The ICT unit of the MOHCDGEC is mandated to ensure that all units of the Ministry use ITC.

The MOHCDGEC, through the National Health Polices (NHP), is committed to create a coordinated HIS. To fulfil this ambition, the M&E section is obliged to work closely with program and department M&E units from within and outside the Ministry. These include PORALG, NBS, and RITA, which are mandated to collect and disseminate health and health-related data/information.

Given the importance of health information in monitoring health sector performance and policy outcomes, a significant investment of resources is required, including personnel, financing, ICT, and other supplies. The importance of investment in HIS is seen through increased efficiency in health service provision. Adequate staff with the right skill mix is critical for effective M&E, and adequate funding is necessary for the sustainability and maintenance of systems.

Gaps

- M&E section lack skill mix to implement the strategy; hence the need for skill mix to coordinate M&E units in the MOHCDGEC, PORALG, and partners
- Insufficient Cordination of stakeholders in the M&E technical areas. Partners are scattered and fragmented in both planning and implementation of M&E activities.
- Scattered partners' efforts to support RHMTs and CHMTs in data analysis, use, and dissemination.

Opportunities

- Capacity for training and research exists in academic institutions offering modules that can be accredited by councils for re-registration/ registration renewal

- Presence of eight zonal health resource centres involved in the development of human resources for health, including capacity building for RHMTs, CHMTs. and HFs; participating in SRA, conducting research, and disseminating health information
- Adoption of the HDC, which aims to align stakeholder support to improve M&E in the country
- Rapid development of modern teaching methods to access courses through distance learning
- The Open Performance Review and Appraisal System (OPRAS) is partially implemented. Properly used, it could motivate staff to raise their commitment to work. Countrywide, SRA and RBF implemented in nine regions created a favourable ground to motivate performance at the facility and individual levels.
- University of Dar es Salaam (UDSM) has introduced a master's degree in Health Information Systems (HIS), Mzumbe a master's degree in health M&E and Muhimbili University of Health and Allied Sciences (MUHAS) introduced master's degrees in Health Information Management, Project Management and M&E.

Vision

There is capacity at all levels to implement M&E (collect, analyse, disseminate, and use data) for evidence-based decision making and accountability.

Objectives and Outcomes

Table 2: Key objectives, interventions and outcomes in capacity strengthening

Objective	Key interventions	Outcomes
Strategic Objective: Strengthen the capacity for implementing M&E at all levels	1. Strengthen leadership and coordination role.	<ul style="list-style-type: none"> ● Key actors understand their roles and shows evidence of commitment to fulfil them.
	2. Mobilize financial resource for implementing M&E at all levels.	<ul style="list-style-type: none"> ● At least 10% of operational budget of the respective entity is allocated for M&E activities.
	3. Health sector continues to advocate for and support the inclusion of M&E competencies within health preservice training programs to ensure all new graduates can collect, analyse, and use health information to improve health service delivery.	<ul style="list-style-type: none"> ● % training institutions centres and schools with HMIS-trained tutors (disaggregated zone, private, region, district) ● % of health management training courses with HMIS integrated into the curriculum.
	4. Zonal training centres provide certification-based M&E short-term training in health data collection, analysis, interpretation, and use to improve health service delivery through a systemic in-service training program.	<ul style="list-style-type: none"> ● Number of HCWs who receive certification for M&E from zonal training centres.

Interventions and Outputs

Table 3: Key interventions and outputs in capacity strengthening

Key Intervention	Outputs
1. Strengthen leadership role	
<ul style="list-style-type: none"> ● Enforce guidance documents for implementing M&E, including policy and policy guidelines, standards, and roles and responsibilities of various key actors. 	<ul style="list-style-type: none"> ● There is evidence of key actors' commitment to fulfil their responsibilities.
<ul style="list-style-type: none"> ● Develop and orient stakeholders on policies, guidelines, and standards relevant to implementation of M&E (NHP, HIS policy guidelines, M&E strategy, DDU strategy, eHealth Strategy, and DHIR). 	<ul style="list-style-type: none"> ● Policy and strategies finalized and disseminated.
<ul style="list-style-type: none"> ● Enhance the coordination of M&E activities to address fragmentation of HIS. 	<ul style="list-style-type: none"> ● There is evidence that key actors understand and are fulfilling their roles.
<ul style="list-style-type: none"> ● Support stakeholders to fulfil their roles as outlined in the policies, guidelines, and strategies (including M&E section, department and program M&E units, M&E and ICT TWGs, and national eHealth steering committee). 	<ul style="list-style-type: none"> ● Needs assessment conducted and recommendations implemented.
2. Mobilize financial resource for implementing M&E at all levels	
<ul style="list-style-type: none"> ● Mobilize financial support for implementing information systems. 	<ul style="list-style-type: none"> ● At least 10% of operational budget of the respective entity is allocated for M&E activities.
<ul style="list-style-type: none"> ● Conduct needs assessment, prepare costed plan for HR capacity strengthening for health M&E, and use existing forums to market/disseminate the plan. 	<ul style="list-style-type: none"> ● Adequate funding available to support HR capacity strengthening.

Key Intervention	Outputs
<ul style="list-style-type: none"> • Conduct needs assessment, prepare costed plan for HR capacity strengthening for health M&E, and use existing forums to market/disseminate the plan. 	<ul style="list-style-type: none"> • Adequate funding available to support HR capacity strengthening.
<ul style="list-style-type: none"> • Incorporate M&E costs in annual plans/budgets. 	<ul style="list-style-type: none"> • % Local Government Authority (LGA) that allocate funding for M&E activities in the respective year.
<ul style="list-style-type: none"> • Coordinate partners to support HR capacity strengthening for health M&E. 	<ul style="list-style-type: none"> • Forum exists that links stakeholders supporting HR capacity strengthening.
<p>3. Health sector continuously advocates for and supports the inclusion of M&E competencies within health preservice training programs to ensure all new graduates are able to collect, analyse, and use health information to improve health service delivery.</p>	
<ul style="list-style-type: none"> • Course catalogue available in country and online (course must include examination) 	<ul style="list-style-type: none"> • Course catalogue available online
<ul style="list-style-type: none"> • Develop online/blended courses to improve data analysis, interpretation, and use as well as constructive feedback measure 	<ul style="list-style-type: none"> • Online/blended courses available
<ul style="list-style-type: none"> • Imbed developed courses in the existing systems for pre- and in-service training 	<ul style="list-style-type: none"> • Curricula revised to include courses in data analysis, dissemination, and use
<ul style="list-style-type: none"> • Develop workbooks for specific HMIS topics to assist users with self-paced learning 	<ul style="list-style-type: none"> • Workbooks developed with specific HMIS topics
<ul style="list-style-type: none"> • Develop and disseminate training materials, including e-learning for training on data analysis, use, and dissemination (including preparation of policy briefs) 	<ul style="list-style-type: none"> • Training materials, including digital, available for training on data analysis, use, and dissemination

<ul style="list-style-type: none"> National-level staff in M&E and ICT sections and M&E units in national programs and agencies trained at master's level 	<ul style="list-style-type: none"> Number of new M&E qualified staff by level
<p>4. Zonal training centres provide certification-based M&E short-term training in data collection, analysis, interpretation, and use of health information to improve health service delivery.</p>	
<ul style="list-style-type: none"> Include pilot test results of the facilitator guide and student manual and expand to all health training institutions 	<ul style="list-style-type: none"> Facilitator guide and student manual implemented in all health training institutions
<ul style="list-style-type: none"> Design and organize tailor-made workshops/courses for special groups 	<ul style="list-style-type: none"> Tailor-made courses available for special groups
<ul style="list-style-type: none"> Create standard qualification for each position on M&E and DDU 	<ul style="list-style-type: none"> Standard qualification available for respective levels of competency in M&E and DDU
<ul style="list-style-type: none"> Develop and implement guidelines for on-the-job training and coaching (include use of champions) to optimize HR capacity for data analysis, dissemination, and use 	<ul style="list-style-type: none"> Guidelines for on-the-job training and coaching developed <p>% LGA reporting to have conducted on-the-job training/coaching on data analysis, dissemination, and use in 25% of HFs in a quarter</p>
<ul style="list-style-type: none"> Develop certification standards for these training programs 	<ul style="list-style-type: none"> Certification standards available for in-service training (including on-the-job training, seminars, and workshops)

2. Routine Health Management Information System (HMIS): Clinical and Administrative Data

Overview

Tanzanian facilities use HMIS registers to document information about patients and report aggregate summaries to districts using monthly summary forms entered into DHIS2 at the district level. Administrative data, including finance, HR, and supplies, are managed by relevant departments.

Current Status

A number of tools have been developed or revised (e.g., HIS guideline, DQA,MPDSR guidelines). New strategies have been developed to guide the implementation of the strategy (e.g., DDU strategy, DHIR). Several score cards, including RCH, have been designed to assist in DDU. The electronic uniform identification code has been successfully piloted in four regions to register and track child immunizations. Other achievements in digitalization at HF include:

- Open Data Kit (ODK) technology has been piloted at the community and HF levels.
- The Government of Tanzania Health Operation Management Information System (GoT HOMIS) was installed in 381 HFs (hospitals and health centres) and integrates most facility functions.
- Other HMIS were installed in different facilities (e.g., Jeeva at Muhimbili National Hospital (MNH)).
- The financial accounting system operational in more than 80% of primary health care facilities.

Integration of major programs (Reproductive, Maternal, Newborn, Child and Adolescent Health; HIV/AIDS; Tuberculosis and Leprosy and Malaria) data systems into DHIS2 has been achieved. Efforts to harmonize administrative systems, including Human Resources for Health Information Systems (HRHIS), EPICOR, eLMIS, HFR, and immunization, are ongoing through the interoperability layer Health Information Mediator and Muungano Gateway.

There are plans to harmonize the Health Resource Management Information System (HRMIS) at President's Office, Public Service Management and Good Governance (POPSM) and the National Health Insurance Fund (NHIF). The latter is aimed to reduce the burden of manual financial transactions.

Gaps and Challenges

All regions and districts of Tanzania have been reporting using DHIS2 since October 2013, and the reporting rate is greater than 90%. Ongoing challenges include:

- *Printed tools are not adequate to the actual requirements.*
- *Supportive supervision is compromised by limited funding, lack of transport (new districts did not receive motorbikes), and duplication of supportive supervision.*
- *Proliferation of pilot interventions that pose a challenge for the Ministry to coordinate and plan for scale up because of lack of meagre resources.*
- *Slow progress to harmonize administrative systems.*
- *The manual data collection system is a burden to health facility workers and community health workers (CHWs), and the digitalization process at this level is expensive.*

Vision

Quality and reliable data from routine health delivery system (HMIS and administrative) are available and accessible to stakeholders at all levels for synthesis of information and use.

Objectives and Outcomes

Table 4: Priority thematic areas, key interventions and outcomes in HMIS

Priority area (in major thematic group)	Key interventions	Outcomes
<p>Objective: Improved efficiency of HMIS and processes to meet all health sector M&E requirements</p>	<p>1. Continue to expand and maintain the decentralized HMIS to ensure all data are collected at health facilities</p>	<ul style="list-style-type: none"> ● # and % of facilities with timely and complete HMIS reports (disaggregated by national program)
	<p>2. Align the processes of developing and reviewing indicators and of data collection to reduce the burden on health workers</p>	<ul style="list-style-type: none"> ● Total number of data elements reported using paper tools (excludes data elements automatically submitted to DHIS2)
	<p>3. Support procurement of data collection materials and equipment</p>	<ul style="list-style-type: none"> ● Facilities and districts have adequate equipment to implement collect and report Mfumo wa Taarifa za Uendeshaji wa Huduma za Afya (MTUHA) data

Table 5: Key interventions and expected outputs in HMIS

Key Interventions	Outputs
1. Continue to expand and maintain the decentralized HMIS to ensure all data are collected at health facilities	
<ul style="list-style-type: none"> • Training CHWs and new facility staff on use of paper tools and use of DHIS2 by new district and regional officials 	<ul style="list-style-type: none"> • % LGAs reporting data quality 80% and above in a year
<ul style="list-style-type: none"> • Continuous professional development on MTUHA and DHIS2 (refresher training, more training to improve data quality, revised books, additional CHMT and health staff) 	<ul style="list-style-type: none"> • % LGAs reporting providing refresher training to health staff each quarter
2. Align the processes of developing and reviewing indicators and data collection to reduce the burden on health workers	
<ul style="list-style-type: none"> • Annual review of HMIS tools to integrate paper tools (including all disease programs, WASH). Reduce data reported over time to reduce impact on health staff shortage 	<ul style="list-style-type: none"> • Annual review report posted on MOHCDGEC website includes summary of change requests and soft copy of updated tools
<ul style="list-style-type: none"> • Update of Tanzania ICD-10 codes list, guidelines for causes, of deaths 	<ul style="list-style-type: none"> • Updated ICD-10 codes list and introduce ICD - 11 version
<ul style="list-style-type: none"> • Develop a comprehensive guideline and training materials and train health workers on ICD-10 	<ul style="list-style-type: none"> • Death reports are accurate, complete, and submitted from health facilities on time
3. Support procurement of data collection materials and equipment	

Key Interventions	Outputs
<ul style="list-style-type: none"> • Support printing and distribution of data collection tools 	<ul style="list-style-type: none"> • All facilities have the required paper tools
<ul style="list-style-type: none"> • Support purchase of motorcycles for district HMIS focal persons 	<ul style="list-style-type: none"> • All district HMIS focal persons have functioning motorcycles

3. Data Quality

Situation

The use of DHIS2 with monthly reporting makes timely facility data available (one quality attribute). This allows more stakeholders to review data quality.

Much of the data originate from manual systems with 14 registers, placing a burden on HCWs. This burden is mainly due to stakeholders' over-expectations for significant numbers of indicators/data from a manual system.

DQA guidelines have been developed and implemented at the national regional and council levels. Results from the DQA are entered into DHIS2. However, budgetary constraints limit implementation, and most DQAs are separately conducted with support from partners. As a result, DQAs activities are scattered and are conducted irregularly, resulting into missed opportunity for implementers to learn from each other.

Opportunities

DHIS2 and facility SRAs provide an opportunity to improve data quality, analytical capacity, and use of data for action at the local level. While the use of DHIS2 expedites the availability of data and provides health managers with the opportunity for analysis, through the SRA, health care workers are motivated to productively engage in the analytical process.

Gaps and Challenges

- Data quality is a major concern. When comparing physical registers with aggregate summaries in DHIS2, there is sometimes a wide range in some facility data. Poor data quality may be due to negligence, often the factors are beyond the control of health care workers. For example, changing from a manual to an electronic system brings about several challenges in data quality and requires frequent supportive supervision.
- Data are not reliable, which may be due to problems with denominators. For example, in Immunization and Vaccine Development (IVD) interventions, coverage can go as high as 140%.
- DQAs and Data Review Meetings (DRMs) are conducted irregularly in regions and districts due to budgetary constraints. This may indicate a lower priority placed on M&E in general.

Vision

By 2025, the health sector has a consistent approach to data quality assessment and interpolation and uses a standard measurement of data quality at all levels.

Table 6: Key priority areas and expected outcomes in HMIS

Priority area (in major thematic group)	Key interventions	Outcomes
<p>Objective: Strengthen accuracy, completeness, and timeliness of data</p>	<p>1. Institutionalize HMIS data quality: Strengthen accuracy, completeness, and timeliness of data in the complete health data lifecycle</p>	<ul style="list-style-type: none"> • # and % of HMIS reports received that have 0 unconfirmed validation errors and 0 unconfirmed outliers • % of sampled facilities passing external data quality audit • Data quality verification measures assessed during either the supportive supervision visit or within the Star rating
	<p>2. Strengthen the M&E framework that promotes, assesses, and tracks data quality in the health sector, including data quality definition, DQA methodology, tools, and use that meet M&E TWG requirements (internal and external stakeholders)</p>	
	<p>3. Motivate data quality improvement by incentivizing health care workers (e.g., publishing DQA results, incorporating DQA results into RBF)</p>	

Table 7: Key interventions and expected outputs in HMIS

Key Interventions	Outputs
1. Institutionalize HMIS data quality improvement activities in existing mechanisms (e.g., SRA, RBF)	
<ul style="list-style-type: none"> • Measure of data quality incorporated into Star rating and RBF 	<ul style="list-style-type: none"> • Star rating and RBF tools have data quality checks
<ul style="list-style-type: none"> • Incorporate mechanism for data validation in routine activities (e.g., supportive supervision), including comparison of reported data to facility-level registers and results of comparison recorded in supportive supervision forms and entered into DHIS2 	<ul style="list-style-type: none"> • Data quality checks integrated into routine supportive supervision tool • Data quality checks done as a routine activity at all levels • DQA results shared internally and externally and used to improve subsequent supervision through DHIS2 and paper-based feedback reports
<ul style="list-style-type: none"> • Use the existing meeting/workshop to share the quality of data collected by facilities (DRMs incorporated into routine meeting agendas at all levels) 	<ul style="list-style-type: none"> • Data quality issues discussed in routine meetings and workshops

Key Interventions	Outputs
<ul style="list-style-type: none"> • Prepare data requirement and work with ICT unit to integrate surveillance or survey data into DHIS2 to support triangulation and data quality review 	<ul style="list-style-type: none"> • Surveillance and survey data integrated into DHIS2
<ul style="list-style-type: none"> • Include data quality accountability in roles and responsibilities for health sector workers 	<ul style="list-style-type: none"> • Job descriptions of health sector personnel have data quality as area of responsibility
<ul style="list-style-type: none"> • Incorporate data quality checks and improve supportive supervision and mentoring activities (apply best practices where CHMT members identify knowledge gaps during supportive supervision and send mentors to facilitate capacity building. Mentors are drawn from health training institutions and regional hospitals.) 	<ul style="list-style-type: none"> • Evidence of follow up with low-performing districts.
<ul style="list-style-type: none"> • Provide feedback and publish indicator results for completion, timeliness, validation, and outliers 	<ul style="list-style-type: none"> • Quarterly dissemination of summary of HF and Council performance disseminated to all districts, regions, MDAs, and M&E TWGs
<ul style="list-style-type: none"> • Conduct external data quality audit (including peer DQA from neighbouring HF/district/region) 	<ul style="list-style-type: none"> • % of sampled HFs undergoing external data quality audit • % of sampled facilities passing external data quality audit

Key Interventions	Outputs
<ul style="list-style-type: none"> • Include data quality measurement in facility, district and regional health profiles 	<ul style="list-style-type: none"> • % HF/council/regional health profiles showing data quality measurements
<p>2. Strengthen the M&E framework that promotes, assesses, and tracks data quality in the health sector, including data quality definition, DQA methodology, tools, and use that meet the M&E TWG requirements (internal and external stakeholders)</p>	
<ul style="list-style-type: none"> • Develop/review and enforce the use of tools for data quality improvement (e.g. data triangulation and interpolation) 	<ul style="list-style-type: none"> • Data quality improvement tools developed/reviewed and incorporate data triangulation and interpolation
<ul style="list-style-type: none"> • MOHCDGEC introduces penalties or punitive measures for intentional false reporting, especially related to gross negligence 	<ul style="list-style-type: none"> • Deterrent penalties introduced and evidence of action taken against culprits
<ul style="list-style-type: none"> • Ensure RHMTs and CHMTs conduct the minimum number of DQAs annually 	<ul style="list-style-type: none"> • Completed calendar for all internal and external DQAs by level by year
<p>3. Motivate data quality improvement by incentivizing health care workers (e.g. publishing DQA results, incorporating DQA results into RBF)</p>	
<ul style="list-style-type: none"> • Host a competition that rewards good examples of data improvement that have had an impact on health service delivery at facilities or on programming of health funds at the district or regional level. Use DQA performance as a criterion for award in RBF. 	<ul style="list-style-type: none"> • DQA is a criterion for scoring in RBF and SRA <p>Competition held and winners selected and awarded</p>
<ul style="list-style-type: none"> • Post information on DQA performance in the national health portal/observatory 	<ul style="list-style-type: none"> • The national health portal/observatory shows data quality measurements

4. Data Dissemination, Use and Evidence-Based Decision Making

Situation

The value of data and information lies in its use. Interventions that increase local demand for reliable health information promote/facilitate its use. At the health facility level, information is used to improve quality of care; at the district level to monitor service delivery; and higher levels for policy and planning. A strong health information system that produces data/information relevant to the country's needs and use is important for accurate measurement and effective accountability for results in the health sector.

A number of interventions/activities have been carried out to enhance the use of data for decision making and accountability. These include:

- *Health profiles:* District and regional health management teams are trained to prepare health profiles using HMIS data. Once completed, profiles will be disseminated using the upgraded national observatory/portal to a wider audience, including health managers, policy makers, researchers, partners, and the general public.
- *The NBS* is working with the Eastern African Statistical Training Centre to incorporate competencies on data use.
- Degree courses have been established to train mid- and high-level experts in M&E, including a health M&E master's program at Mzumbe University, health informatics at UDSM, and health information management at MUHAS.
- *Capacity strengthening for data analysis and use* is conducted in the regions/districts with support from partners. Support is through national programmes and is focused on disease-specific area such as HIV/AIDS, TB, malaria, and nutrition depending on partners' preference. For example, UNICEF support on bottleneck analyses is limited to 23 districts.
- *Data outputs:* Data analyses are done to produce various information products, including dashboards and other visualizations and health profiles. For example, the M&E section produces the annual health sector performance profiles and supports regions and district to prepare health profiles. National programs such as the National Malaria Control

Programme (NMCP) support regional and district coordinators to prepare dashboards based on program data

- *Tracking finances and supplies:* The MOHCDGEC and PORALG are planning to use DHIS2, GoT-HOMIS, eLMIS, and EPICOR data to track NHIF financing to supplies in HFs.
- *The Tanzania Health Observatory/Portal:* The DHIS2 portal is currently being upgraded into an observatory to improve the availability and use of information and evidence on health status and trends and social determinants for policy dialogue and to monitor and evaluate the implementation of national strategies and plans.

Gaps and Challenges

Gaps in data analyses and use include:

- *Synthesizing available data/information* to obtain answers to programmatic challenges and policy issues. For example, program managers want to know why some health facilities had shortages of stock while others did not. Policy makers wish to know why reproductive, maternal, neonatal, and child health (RMNCH) indicators in some areas do not improve despite massive investment.
- *Health managers need skills to transform* data into information, prepare visualizations, critically examine and interpret data, perform knowledge management and learning, and use data to make a decision or present an argument.
- Scattered and inadequate support on training and implementing DQAs, DRMs, data use, and information packaging.
- *Inadequate coordination of support* leads to missed opportunities to learn from best practice.
- *Capacity strengthening, practices, and motivation* on data use are not adequately institutionalized, affecting data quality and limiting the ability to make evidence-based decisions.
- *Lack of accountability for performance* (health results) exemplified by the lack of enforcement on data analyses and use. There is poor uptake of some tools, such as the district health profile (DHP), which could partly be attributed to lack of enforcement mechanisms

- *Inadequate mechanism for gathering and using feedback* from community and users to improve systems.

Opportunities

- *Government recognizes* the value of health information systems through financial and staff investment.
- *Existing structure favors* efficient flow of data from the community to the national level. At the national level, the MOHCDGEC and PORALG collaborate with multiple development partners to build capacity under the SWAp structure and the M&E TWG
- M&E, eHealth Strategy, and DHIR, among other priorities, have to focus on data dissemination and use.
- *A DDU team* has developed a draft DDU strategy.
- *Existing platforms* could be leveraged to disseminate data and health information.

Vision

By 2024, the health sector has a culture that demands evidence-based decision making to continuously improve provision of quality services to achieve better health outcomes.

Table 8: DDU priority areas, key interventions and expected outcomes

Priority area (in major thematic group)	Key interventions	Outcomes
<p>Strategic Objective: Strengthen capacity for data analysis, dissemination, and use for evidence-based decision making and accountability</p>	<p>1. Strengthening policy, guidelines, legal frameworks, and roles and responsibilities to facilitate data use and accountability for evidence-based decision making by all stakeholders</p>	<ul style="list-style-type: none"> • DDU guiding documents available and disseminated at all levels
	<p>2. Strengthen DDU capacity for all health sector stakeholders to ensure regular, detailed analysis and interpretation (including estimate and projections, interpolation for missing data, in-depth studies, assessment</p>	<ul style="list-style-type: none"> • Policy decisions made based on evidence (using policy briefs, dashboards, and interpreted health information) • LGAs achieving desired level of data use using MOHCDGEC DDU monitoring tool • % Regions, LGAs, and vertical programs show evidence of providing feedback to lower levels as part of the supportive supervision documentation and follow up

Priority area (in major thematic group)	Key interventions	Outcomes
Strategic Objective: Strengthen capacity for data analysis, dissemination, and use for evidence-based decision making and accountability	of progress, and performance and efficiency of health systems using existing data and international best practice)	<ul style="list-style-type: none"> # and % of facilities that can provide an example of a change in service delivery practice as a result of data review (the data reviewed and used for this activity will need to be specified) % of LGAs, districts, and vertical program using the dashboard for performance tracking
	3. Improved coordination of DDU systems, activities, and stakeholders	<ul style="list-style-type: none"> A functioning forum exists to discuss and agree on matters pertaining to DDU

Table 9: DDU key interventions and expected outputs

Key Interventions	Outputs
1. Strengthening policy, guidelines, and legal frameworks that describe roles and responsibilities to facilitate data use and accountability by all key actors	
<ul style="list-style-type: none"> Finalize and disseminate national HIS to guideline data ownership, flow, dissemination, and information use 	<ul style="list-style-type: none"> Reduce the number of parallel systems or multiple reporting Reduce reporting burden on HCWs
<ul style="list-style-type: none"> Finalize and disseminate DDU strategy 	<ul style="list-style-type: none"> DDU strategy published and disseminated
<ul style="list-style-type: none"> Develop draft data monitoring tool 	<ul style="list-style-type: none"> Finalized DDU monitoring tool
2. Strengthen DDU capacity for all health sector stakeholders to ensure regular detailed analysis and interpretation	
<ul style="list-style-type: none"> Promote and support forum for information translation and communication to policy makers, including the National Health Policy Forum (NAHEPO) 	<ul style="list-style-type: none"> Forums needs identified and support provided
<ul style="list-style-type: none"> Train MOHCDGEC central-level staff on data analysis, use, and dissemination 	<ul style="list-style-type: none"> Attendance and evidence of using training materials/outputs
<ul style="list-style-type: none"> DDU training for RHMTs and CHMTs 	<ul style="list-style-type: none"> # of people trained

Key Interventions	Outputs
<ul style="list-style-type: none"> • Allow health service managers at all levels to have real-time access to DHIS2 and use it to analyse data 	<ul style="list-style-type: none"> • Health service managers analyse data using real-time DHIS2 data
<ul style="list-style-type: none"> • Develop dashboard for real-time tracking of performance for all program areas at all levels (facility, district, region, national) 	<ul style="list-style-type: none"> • Health managers at all levels use dashboards for program planning and decision making that are disaggregated by level
<ul style="list-style-type: none"> • Train health managers to conduct regular disaggregated data analysis (by age, gender, location, and wealth quintile) 	<ul style="list-style-type: none"> • Health service managers at all levels analyse data disaggregated by equity dimension
<ul style="list-style-type: none"> • Institute and implement rewarding mechanisms, such as effective use of Open Performance review and Appraisal System (OPRAS) and RBF, to motivate health care workers to make evidence-based decisions 	<ul style="list-style-type: none"> • Rewarding mechanism (including OPRAS and RBF) assesses and rewards evidence-based decision making and accountability
<ul style="list-style-type: none"> • Support regions to create their regional health profiles (RHPs) 	<ul style="list-style-type: none"> • % of regions developing their RHPs annually
<ul style="list-style-type: none"> • Support districts to produce their own DHPs 	<ul style="list-style-type: none"> • % of districts developing their DHPs annually
<ul style="list-style-type: none"> • Roll out DHP training to all districts 	<ul style="list-style-type: none"> • % of districts developed their DHPs yearly
<ul style="list-style-type: none"> • Identify and develop/package information products such as showcases, best practices, profiles, statistical abstracts, and publications on lessons learned 	<ul style="list-style-type: none"> • Information products (publications, abstracts, policy briefs) developed

Key Interventions	Outputs
<ul style="list-style-type: none"> Disseminate health information packages using a wide range of approaches to reach a larger audience 	<ul style="list-style-type: none"> Information products accessible from the national health portal/observatory
<ul style="list-style-type: none"> Support dissemination forums aimed at discussing progress in health service provision in the regions (regional commissioner/regional administrative secretary meetings with RHMTs/CHMTs) 	<ul style="list-style-type: none"> Council-, regional, and national-level meetings guided by evidence
<ul style="list-style-type: none"> Develop and implement mechanism to obtain feedback from the community/users of health information 	<ul style="list-style-type: none"> Lessons from feedback are documented and there is evidence of action being taken
<p>3. Improved coordination of DDU systems, activities, and stakeholders</p>	
<ul style="list-style-type: none"> Coordinate support for the development and implementation of the Tanzania Health Portal 	<ul style="list-style-type: none"> Stakeholder forum exists and meets regularly
<ul style="list-style-type: none"> Analysis of hospital mortality prevalence and trend 	<ul style="list-style-type: none"> Mortality data shared with the World Health Organization (WHO)
<ul style="list-style-type: none"> Document and share M&ESI good practices internationally 	<ul style="list-style-type: none"> M&ESI experiences documented, presented at international conference, and published

5. Surveillance

The Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) through the M&E section has the National Sentinel Surveillance System unit is responsible for coordinating community-based data collection systems for the health sector.

Situation

The Health and Demographic Surveillance Site (HDSS) survey monitors births, deaths, cause of deaths, and migration of population overtime, and it provides important information about the burden of disease. To ensure national representation and cost efficiency, health sector stakeholders, led by the MOHCDGEC, setup the Sentinel Panel of Districts, which include the 23 SAVVY districts along with the Ifakara Health Institute (IHI) HDSS sites. HDSS sites under the MOHCDGEC include Ilala, Temeke, Hai, Igunga, Morogoro Rural, and Morogoro Municipal, while Rufiji, Ulanga, Kilombero and Kigoma Urban are under the IHI and Korogwe and Magu districts are under the National Institute for Medical Research (NIMR). There are also 23 SAVVY sites under IHI: Temeke, Ilala, Kilosa, Bagamoyo, Moshi, Babati, Kondoa, Singida, Geita, Uyui, Musoma, Kasulu, Sumbawanga, Muleba, Mbozi, Songea, Kahama, Mtwara, Mikindani, Tanga, Arusha, Iringa, and Ruangwa.

The Sample Vital Registration with Verbal Autopsy (SAVVY) survey generates annual all cause, cause-specific, and age-specific mortality estimates as well as other demographic indicators. These data can be further disaggregated by zone and residence (rural-urban). The Sentinel Panel of Districts has two arms. The population-based arm (SAVVY1) tracks vital events in a total population of around 800,000 people. This produces annual estimates of age- and cause-specific mortality and other key demographic variables. The facility-based information system arm collects health service statistics from the roughly 1,500 facilities in the sample districts (approximately 20% of all HFs in the country). The NSS has led the process of developing and reviewing new guidelines for community-based data management systems.

Surveillance for diseases prone to epidemics and some selected conditions of national interest is conducted through the IDSR. The system is digitalized in 19 of the 26 regions. National intervention programs conduct specific disease surveillances with support from various partners, including integrated HIV, TB, and malaria surveillance. HIV/AIDS data include prevalence of HIV, behavioral factors, sexual networks of key populations, and drug resistance. The NACP plans to introduce genotyping to track HIV resistant strains.

The DHIR has an objective to invest in the implementation of notification systems for births and deaths to ensure that all births and deaths, including those in communities, are recorded. The eHealth and DHIR emphasize scaling up surveillance systems for notifiable diseases by ensuring that eIDSR is implemented country-wide. The MOHCDGEC Epidemiology unit has led the process to develop and rollout IDSR, including the electronic reporting tool, to 19 regions.

Gaps and Challenges

Several gaps exist with regard to demographic and disease surveillance, including:

- A need for support to scale up eIDSR countrywide.
- Sentinel sites implemented by IHI are reported to have ceased operations since the withdrawal of support from partners. The MOHCDGEC is relying on routine facility-based data to assess mortality in the country.
- Efforts are needed to apply open data principles to make data sets accessible to all health sector stakeholders, preferably through DHIS2.
- There is a need to train health care workers and registrars on ICD-10, improve access to datasets, shift from paper to electronic data collection, partner with RITA and build its capacity, and integrate data into other systems.

Opportunities

- Presence of a country-wide infrastructure of sentinel sites for collecting national representative data
- A functioning IDSR system operating throughout the country
- Development partners with interest to support disease-specific Surveillance activities
- Efforts to harmonize health information systems will allow prompt sharing of detailed surveillance data across levels and among Stakeholders

Vision

The health sector has a strong demographic and disease surveillance (SAVVY, DSS, HIV/AIDS, malaria) data collection system that can provide community-based health data.

Table 10: Priority areas key interventions and expected outcomes in surveillance

Priority area (in major thematic group)	Key interventions	Outcomes
<p>Strategic Objective: Surveillance activities implemented and reports released according to five-year surveillance plan</p>	<p>1. Support eIDSR to be implemented in all regions in the country</p>	<ul style="list-style-type: none"> • Surveillance reports disseminated in time (depending on disease type)
	<p>2. Expand eIDSR scope to include tracking community-based mortality data</p>	
	<p>3. Strengthen disease-specific surveillance systems to collect important data for monitoring national programs (e.g., key population in HIV/AIDS; case detection and drug resistance in TB; MPDSR in RCH)</p>	

Table 11: Key interventions and outputs in surveillance

Key Interventions	Outputs
1. Support eIDSR to be implemented in all regions in the country	
<ul style="list-style-type: none"> • Conduct integrated disease surveillance 	<ul style="list-style-type: none"> • Weekly data reported in DHIS2
2. In collaboration with ICT units and eIDSR, expand scope to include tracking community-based mortality data	
<ul style="list-style-type: none"> • Develop and implement guidelines for community-based data collection and reporting of health data 	<ul style="list-style-type: none"> • Guidelines for collection and reporting developed and implemented
<ul style="list-style-type: none"> • Coordinate and support community-based data collection initiatives 	<ul style="list-style-type: none"> • Forum for stakeholders implementing community-based interventions created and functional
3. Strengthen disease-specific surveillance systems to collect important data for monitoring national programs(e.g., key population in HIV/AIDS; case detection and drug resistance in TB; MPDSR in RMNCAH)	
<ul style="list-style-type: none"> • Transition from antenatal care surveillance to use of prevention of mother-to-child transmission data to provide information on HIV prevalence among pregnant women annually 	<ul style="list-style-type: none"> • NACP publishes trends in HIV infection among pregnant women every year within six months of year end
<ul style="list-style-type: none"> • NACP to conduct drug resistance study every two years (including transmitted drug resistance and acquired drug resistance) that is published in the drug resistance report 	<ul style="list-style-type: none"> • HIV drug resistance reports published in 2016, 2018, and up to 2024

Key Interventions	Outputs
<ul style="list-style-type: none"> • Conduct hot spot surveillance for HIV 	<ul style="list-style-type: none"> • Population HIV surveillance results are used for incidence modelling, and the platform is used to validate recent HIV infection assays
<ul style="list-style-type: none"> • Conduct HIV incidence survey 	<ul style="list-style-type: none"> • HIV incidence survey report
<ul style="list-style-type: none"> • Conduct HIV case-based surveillance (using biometric markers to uniquely identify cases) 	<ul style="list-style-type: none"> • HIV case surveillance report
<ul style="list-style-type: none"> • Conduct malaria surveillance 	<ul style="list-style-type: none"> • HMIS monthly reports and DHIS2 weekly reports • Therapeutic efficacy, insecticide-resistance testing, and community malaria control monitoring reports • Parasitaemia survey and entomological surveillance reports • School malaria prevalence survey report
<ul style="list-style-type: none"> • Develop case-based TB and leprosy electronic system under DHIS2 	<ul style="list-style-type: none"> • Quarterly district data reports submitted to national level
<ul style="list-style-type: none"> • NTLP conducts TB drug resistance survey every five years 	<ul style="list-style-type: none"> • TB drug resistance survey reports published in 2018

Key Interventions	Outputs
<ul style="list-style-type: none"> • Conduct Primary Sensitivity Testing (PST) and drug resistance survey 	<ul style="list-style-type: none"> • PST and drug resistance survey report
<ul style="list-style-type: none"> • Conduct Expanded Program of Immunization (EPI) surveillance 	<ul style="list-style-type: none"> • EPI surveillance report
<ul style="list-style-type: none"> • Review data elements/indicators collected by the existing vertical systems and update to meet the requirements in collaboration with stakeholders including ICT units and vertical programs 	

6. CRVS and SAVVY

Situational Analysis

The best source for tracking births, deaths, and causes of death is data collected in through civil registration of vital events, including births and deaths. RITA has the legal mandate to register births and deaths but obtains primary data from the health sector and local government structures for notifications.

A CRVS committee is chaired by the Prime Minister's Office; other members include the MOHCDGEC, eGovernment Agency, and the NBS. The committee is responsible for coordinating all CRVS activities.

An MoU on birth and death registration has been signed –by the MoCLA, MOHCDGEC, and PORALG.

UNICEF supports RITA and Reproductive Child Health (RCH) unity on birth and death registration in 11 regions, resulting in an increase in birth registration coverage. Data on births are entered a mobile phone application and transmitted to a server located at RITA. The RCH section of the MOHCDGEC is implementing a maternal and perinatal death audits.

Gaps and Challenges

Situation analyses conducted in preparation for the CRVS strategy identified four critical issues that require immediate intervention. For the MOHCDGEC, a major challenge is the inability to respond to high demand for information on causes of deaths, which undermines the opportunity for timely evidence at all levels. Other challenges include:

- A fragmented registration processes
- Inadequate legal and regulatory frameworks and governance structures
- An incomplete vital statistics process
- An inadequate stakeholder participation and coordination process

Despite digitalization, lengthy bureaucracy in getting the certificate at the district office hinders the process. To strengthen data on deaths across health facilities, the MOHCDGEC M&E section has introduced a register for deaths. HFs report deaths using ICD-10 codes that will be incorporated into GoT-HOMISSAVVY is a demographic surveillance system that provides estimates of mortality based on age, gender, residence, and zone in sentinel districts. The system is currently not functioning due to budgetary constraints.

Opportunities

The country has a well-organized administrative system down to the hamlet level (comprising about 20 households) where there is a hamlet chair.

A legal framework exists for registering birth and deaths.

There is a village registry system with a Village Executive Officer (VEO) in each village who is responsible for filling in and updating the registers.

Rapid developments in digital technology and IT solutions create the potential for harmonizing the CRVS with other systems such as National Identification Authority (NIDA) and National Electoral Commission (NEC).

Vision

The health sector continuously improves sample-based data collection (SAVVY and DSS) to provide estimates for community data, including births, deaths and causes of death, while strengthening collaboration with RITA to ensure that at least 50% of all births and deaths are registered with civil authorities by 2020.

Table 12: Priority areas, key interventions and expected outcomes in sample-based data collection (SAVVY and DSS)

Priority area (in major thematic group)	Key interventions	Outcomes
<p>Strategic Objective:</p> <p>Improve registration of births and deaths in Tanzania</p>	<ol style="list-style-type: none"> 1. Continue SAVVY surveillance and ensure that data are available to all stakeholders with full data element definitions and data assumptions 2. Collaboration among RITA, MOHCDGEC, and PORALG 	<ul style="list-style-type: none"> • Data sets made available to stakeholders via MOHCDGEC data web-portal at least every six months • Proportion of registered births increased • Proportion of certified deaths increased

Table 13: Key interventions and expected outputs of sample-based data collection (SAVVY and DSS)

Key Interventions	Outputs
1. Continue SAVVY surveillance and ensure that data are available to all stakeholders with full data element definitions and data assumptions	
<ul style="list-style-type: none"> Accelerate the under-five child birth registration in Tanzania through the Under Five Birth Registration Initiative 	<ul style="list-style-type: none"> Number of districts registering under-fives using Temeke and Mbeya model
<ul style="list-style-type: none"> Support RITA to expand birth and death registration systems to rural areas 	<ul style="list-style-type: none"> % births registered from rural areas % deaths registered from rural areas
<ul style="list-style-type: none"> Training of village health workers to conduct of verbal autopsy for notification of death 	<ul style="list-style-type: none"> Death information from village health workers
<ul style="list-style-type: none"> SAVVY and HDSS results for cause of death and other health statistics included in health sector performance profile and data sets available to all in line with open data principles 	<ul style="list-style-type: none"> Health sector performance profile report produced annually that contains data from SAVVY and HDSS
<ul style="list-style-type: none"> Mobilize fund to support SAVVY and HDSS 	
2. Collaboration among RITA, MOHCDGEC, and PORALG	
<ul style="list-style-type: none"> RITA, MOHCDGEC, and POPSM collaborate to leverage presence and capacity of all three MDAs to increase percentage of registered births 	<ul style="list-style-type: none"> A functioning coordinating forum exists with full participation from all parties
<ul style="list-style-type: none"> Prepare policy brief based on CRVS report 	<ul style="list-style-type: none"> Policy briefs developed
<ul style="list-style-type: none"> Vital registration workshop held every two years 	<ul style="list-style-type: none"> Workshop proceedings

7. Population, Facility Surveys and Research

Typically, input and process indicators rely upon administrative and routine data systems. Outputs and outcomes are measured through routine data and survey, while impact indicators rely upon population-based survey data.

Situation

Population-based health surveys provide information on service coverage, equity, and population health outcomes. The NBS maintains a Tanzania Statistics Master Plan and the most recent plan covers the period 2009/10–2013/14.

WHO guidance and HIS performance plans require a 10-year costed plan for population and facility surveys that is driven by country information needs. The Mid Term Review (MTR) analytical report also called for more emphasis on survey analysis. Over the last 10 years, Tanzania has completed a range of surveys that provide data to inform health monitoring and evaluation. Regular integrated surveys, including facility-based (Tanzania SPA, SARA) and community-based Demographic Health Survey (DHS) surveys are conducted in the country. Specialized surveys supported by partners on specific areas include tracer studies and Family Planning Needs Survey, Violence Against Children (UNICEF), and a nutrition survey (UNICEF).

Gaps and Challenges

Several gaps exist in the effort to improve population and facility-based surveys, including:

- No survey plans as the health sector currently does not have a specific Survey plan
- Surveys lack harmonization and fails to benefit from synergy. This could partly be due to a lack of flexibility among programs and supporting partners whose priority is to conform to multi-country specifications rather than local integration.
- The National Institute for Medical Research (NIMR) is mandated to coordinate all scientific health evidences, medical researches and bio-medical trials. The institute work with other institutions including Ifakara Health Institute (IHI), Health Universities that conduct medical trials, NIMR has Research Ethics Committee (REC) – also called an Institutional

Review Board (IRB) chaired by the Chief Medical Officer. Currently NIMR is establishing the National Health Research Agenda 2019 to 2024. The document stipulate the main and specific objectives, the document also set health research priorities across the Health Sector for the five years plan. On the other hand the M&E Section under the Policy and Planning Department is mandated to coordinate all Operation health research, Demographic and health surveys, Health facility assessment, Health surveillances and Sentinel sites. The M&E work with health programs to plans, conduct situational analysis/ need assessment, midterm, end of term, outcome and impact evaluation of health sector and health programs. The ministry through NIMR and M&E Section is responsible to align all partners conducting health researches and surveys, funding partners, track budget allocation from the government for health research ad surveys, track research findings and conduct forums for transforming research findings to action so as to ensure research findings benefit Tanzanian and support on decision making and policy formulation.

Opportunities

- The recently introduced HDC, has among other priorities, harmonization of surveys. Implementation of this initiative will give impetus to harmonization of multiple surveys.
- Health research and academic institutions conduct research. The MOHCDGEC, with support from partners, could utilize these institutions to address M&E operational and implementation bottlenecks.
- NIMR is a government agency responsible for health research coordination. NIMR hosts National Health Policy Forum (NAHEPO) and plans to develop a resource centre for health data. NIMR will conduct biomedical studies and trials while M&E unit will conduct operation research & survey.

Vision

Tanzania maintains a costed 10-year population and facility health survey plan that is integrated with national statistics plans and includes specific details on content, funding, and execution. Surveys are implemented according to plan using global standards.

Table 14: Priority areas, key interventions and expected outcomes of the population and health facility surveys

Priority area (in major thematic group)	Key interventions	Outcomes
<p>Strategic objective:</p> <p>Coordinated approach to facility surveys and operational research across MDAs and timely dissemination of results and sharing of survey data sets</p>	<p>1. Coordinate support for review of indicators and methods and implementation plans for the surveys</p>	<ul style="list-style-type: none"> ● # and % of surveys disseminated (report prepared, CDs, media coverage, brochures, etc.) within 12 months of the health sector survey plan scheduled completion
	<p>2. Coordinate support on health systems research to address M&E operational and implementation bottlenecks</p>	<ul style="list-style-type: none"> ● Number of operational research studies conducted
<p>Coordinated approach to sustaining and increasing use of survey data (DHS, Teku Academic Information System (TAIS), etc.) correlated to routine data</p>	<p>3. Conduct in-depth analyses based on the surveys and other sources and use findings to obtain nationally representative evidence on population health status</p>	<ul style="list-style-type: none"> ● Analytical review report/document

Table 15: Key interventions and expected outputs of the population and health facility surveys

Key Interventions	Outputs
1. Coordinate support for review of indicators and methods and implementation plans for the surveys	
<ul style="list-style-type: none"> Finalize the 10-year survey plan 	<ul style="list-style-type: none"> 10-year plan approved
<ul style="list-style-type: none"> Create a forum to finalize approach to annual facility assessments and update methodology for integrated assessments across health sector 	<ul style="list-style-type: none"> Finalized plan integrated into 10-year survey plan
<ul style="list-style-type: none"> Create a forum to harmonize definition and disaggregation across surveys 	<ul style="list-style-type: none"> Common definitions for data and indicators to allow for correlation
<ul style="list-style-type: none"> Coordinate annual data collection and verification of HF service area population data sets (involving MOHCDGEC, PORALG, NBS and health sector stakeholders, district medical officers, and district planning officers) 	<ul style="list-style-type: none"> Revised service area population data sets computerised
<ul style="list-style-type: none"> Review survey plans annually at M&E and ICT TWG meetings 	<ul style="list-style-type: none"> Revised annual survey plan
<ul style="list-style-type: none"> Implement each survey per plan (ensure kick-off includes PORALG, NBS, MOHCDGEC, and Ministry of Land [maps/demarcation]) 	<ul style="list-style-type: none"> Survey report disseminated
<ul style="list-style-type: none"> Create a working group with PORALG, NBS, and other stakeholders to develop requirements for a single geographic administration authority and identify how to implement this system 	<ul style="list-style-type: none"> Geographic administration registry information system operational

Key Interventions	Outputs
2. Coordinate support on health systems research to address M&E operational and implementation bottlenecks	
<ul style="list-style-type: none"> • Set local research agenda for M&E 	<ul style="list-style-type: none"> • Research agenda documented
<ul style="list-style-type: none"> • Coordinate local and international research funding for health sector M&E from various sources 	<ul style="list-style-type: none"> • Funding available for operational research in M&E
<ul style="list-style-type: none"> • Support/facilitate operational research in the regions/districts/ health facilities 	<ul style="list-style-type: none"> • Operational research conducted and results shared
3. Conduct in-depth analyses based on the surveys and other sources and use findings to obtain nationally representative evidence on population health status	
<ul style="list-style-type: none"> • Create a forum to conduct in-depth analyses and provide nationally representative evidence on community health status and vital statistics 	<ul style="list-style-type: none"> • Document outlining health status based on survey data

8. Information Systems Integration and ICT Infrastructure to Support M&E

Situation

The MOHCDGEC developed DHIS2 to digitalize HMIS data. With support from the Global Fund, the UDSM provides technical assistance to update and trouble shoot the software. DHIS2 has been used to integrate national programs and is in the process of harmonizing administrative systems. PORALG developed the Muungano gateway to harmonize local government information systems, including the health sector. PORALG has also developed GoT-HOMIS, which is currently implemented in 381 HFs in the country. There are plans to harmonize the HRMIS and NHIF and integrate them into GoT-HOMIS.

The MOHCDGEC plans to digitalize client registers to enable data transmission directly to DHIS2. Electronic devices of all type will be used to register clients. There are also plans to use electronic devices to collect data during DQA and transmit them to DHIS2.

Gap and Challenges

- Limited understanding on the role of ICT in the health sector. While some stakeholders understand ICT as a separate entity with a clear demarcation from M&E, others considers the two inseparable.
- Lack of guidelines on vendor engagement and proper procedures for requesting ICT services. Consequently, some procured software and systems are substandard, expensive to maintain, and vendor dependent.
- There are concerns of limited access to real-time DHIS2 data for managers at various levels. There is also limited capacity of the MOHCDGEC to develop and troubleshoot on DHIS2, thus compromising the necessary support required by stakeholders.
- There is a proliferation of pilot IT solutions. New innovations are being tested while previous ones are yet to be rolled out.
- There are fragmented information systems, such as multiple HR systems, including HRHIS (MOHCDGEC), iHRIS (PORALG), and Lawson (POPSM). Research results and data sets are not linked to the HMIS. There is a need to fast-track the completion of IT solutions

to harmonize information systems, including the health information mediator and GoT-HOMIS.

- Multiple training data systems exist, including pre-service training (training institution information systems) and in-service training (tranSMART, train tracker). However, these are linked neither to one another nor to HR systems, and the quality of data is poor.

Opportunities

The dramatic expansion of internet bandwidth in the country provide a favorable environment for digitalization at lower levels and further harmonization of information systems.

The ongoing development of the NHP, the HIS policy guidelines, and the review of the eHealth strategy presents an opportunity to inform strategies to digitalize health facilities and harmonize information systems.

Vision

The Tanzania health sector has cost-effective, flexible, reliable, scalable, sustainable, and integrated e-health infrastructures that support integrated M&E.

Table 16: Objectives, key objectives and expected outcomes of integrating ICT Infrastructure to Support M&E

Objective	Key interventions	Outcomes
<p>Strategic objective:</p> <p>Integrate more programs in the health sector in DHIS2 and introduce multiple modes for data entry based on emerging technology trends under eHealth strategy</p>	<p>1. Strengthen HMIS to ensure digitalization of all data collected at health facilities and in communities and a flexible data warehouse that is integrated with other data sources and related systems (including electronic registers for aggregate data, use of electronic medical records with automated aggregate reporting, and ODK to collect and transmit data from the community)</p>	<ul style="list-style-type: none"> • # priority HIS systems integrated successfully with DHIS2 • Increase in the number of health facilities and villages using electronic systems and submitting electronically aggregated data to DHIS2
	<p>2. Expand use of mobile technologies and Internet-based information systems to contribute to remote data collection, automated collation of data and feedback to users, and assist in the integration of health data with DHIS2</p>	<ul style="list-style-type: none"> • # facilities reporting using the mobile application disaggregated by eIDSR and other new mHealth applications
	<p>3. Mobilize funding to incrementally computerize HFs (to include equipment and training) while phasing out paper-based tools</p>	<ul style="list-style-type: none"> • % of HFs reporting using electronic devices

Table 17: Key interventions and expected outputs of integrating ICT Infrastructure to Support M&E

Key Intervention	Outputs
1. Continue to expand and maintain the decentralized and flexible HMIS data warehouse that is integrated with other data sources and related systems	
<ul style="list-style-type: none"> Train regional and district hospitals on using DHIS2 for HMIS and administrative data reporting 	<ul style="list-style-type: none"> # Health care workers using DHIS2
<ul style="list-style-type: none"> Support implementation of GoT-HOMIS 	<ul style="list-style-type: none"> % of HFs implementing GoT-HOMIS
<ul style="list-style-type: none"> Prepare data requirements and work with MOHCDGEC ICT section to perform DHIS2 modifications (including stakeholder meetings to discuss new developments) 	<ul style="list-style-type: none"> DHIS2 features expanded and maintained
<ul style="list-style-type: none"> Orientation workshops with national and other programs (e.g., Deutsche Stiftung Weltbevoelkerung (DSW), Water Sanitation and Hygiene (WASH) on DHIS2 	<ul style="list-style-type: none"> # of personnel in respective departments using DHIS2
<ul style="list-style-type: none"> Prepare data requirements and work with ICT unit in integration of HIS and DHIS2 from national programs, including HR, Drugs and Commodities Distribution, Finance, PlanRep, Epicore, Tanzania, Trainsmart, health insurance data Community Health Fund (CHF)/Tiba kwa Kadi (TIKA) 	<ul style="list-style-type: none"> DHIS2 integrated with administrative systems (inter-operability ensured between different information systems)
<ul style="list-style-type: none"> Prepare data requirements and work with ICT unit to integrate the RMNCH scorecard into HMIS/DHIS2 and facilitate active participation of Council Health Magement Team (CHMTs), Regional Health Management Team (RHMTs), and central-level actors to update the score card action lines 	<ul style="list-style-type: none"> RMNCAH scorecard integrated into HMIS/ DHIS2

Key Intervention	Outputs
<ul style="list-style-type: none"> Prepare data requirements and work with ICT unit to integrate MPDSR data into the HMIS/DHIS2 electronic database at the council level 	<ul style="list-style-type: none"> MPDSR data integrated into the HMIS/DHIS2 electronic database at the council level
<ul style="list-style-type: none"> Roll out an electronic data collection system (GoT-HOMIS) for RMNCAH at all levels 	<ul style="list-style-type: none"> Electronic data collection system for RMNCAH at all levels
<p>2. Expand the use of mobile technologies and Internet-based information systems to contribute to remote data collection, automate collation of data and feedback to users, and assist in the integration of health data with DHIS2</p>	
<ul style="list-style-type: none"> Prepare data requirements and work with ICT unit to develop mHealth platform to assist with HMIS reporting and community data collection 	<ul style="list-style-type: none"> mHealth platform developed
<ul style="list-style-type: none"> Support program units to scale up CRVS for data capture at the community level, taking advantage of the new cadre of trained CHWs 	<ul style="list-style-type: none"> % of villages reporting using electronic devices
<p>3. Mobilize funding to incrementally computerize, including equipment and training</p>	<ul style="list-style-type: none"> % of HFs reporting using electronic devices

Implementation Arrangements

This strategy accommodates all M&E key stakeholder interests. However, to enhance coordination and ensure measurable achievements by 2020, implementation of the strategy will focus on achieving the six HDC priority areas. The rationale for the choice is that the six priorities are a collective agenda for which consensus was recently reached through consultative meetings and commitments made.

The six priority areas for the Tanzania HDC are as follows:

- 1. Addressing fragmentation of M&E and data systems:** Strengthen **governance and coordination** mechanism to ensure that all stakeholders adhere to the one M&E framework.
- 2. Alignment of indicators and data collection processes:** Support alignment of indicators of program-specific strategic plans with HSSP IV and harmonize data collection efforts.
- 3. Alignment of health facility assessments and surveys** (e.g., Service Availability and Readiness Assessment (SARA), Service Provision Assessment (SPA), SDI, and Star Rating Assessment s(SRAs) and Safe Care)): Harmonize the indicators, processes, periodicity, and coverage to meet the needs of the country and its partners.
- 4. Joint and aligned investment in digital health information systems** (including digitization to phase out paper systems): Support digitalization and integration of information systems at service provider level to collect standardized data elements.
- 5. Strengthening capacity for analysis and use of data:** Increase access to and capacity for analysis and use of data at all levels and by all key actors.
- 6. Dissemination and access:** Strengthen access to national health information and data (routine data, surveys, research publications, reports) through the Tanzania health portal/observatory.

Stakeholders who are not part of the HDC communiqué will be free to join the HDC agenda or advance, independently, with M&E activities within the strategic framework.

Roles and Responsibilities

The M&E section of the MOHCDGEC is charged with responsibility to:

- Prepare and update M&E annual plans and monitor implementation
- Monitor and evaluate implementation of the policy strategy
- Monitor and evaluate implementation of the ministry's plans
- Monitor performance of executive agencies under the ministry
- Analyze data to inform plans and policy formulation
- Undertake research on impact of interventions undertaken by the ministry
- Undertake service delivery surveys
- Coordinate performance reviews and prepare performance reports

The M&E and ICT Steering Committee draws membership from the Permanent

Secretary and the Chief Medical Officer of the MOHCDGEC, among others. The M&E and ICT Steering Committees are responsible for the approval of recommendations made by the M&E and ICT TWGs. The M&E Steering Committee draws membership from the MOHCDGEC, the Permanent Secretary, the Chief Medical Officer, the Director of Policy and Planning, the head of the M&E section, and representatives from PORALG and major development partners. Other directors and health program heads may be invited when necessary to review the progress of the MOHCDGEC toward agreed targets.

M&E and ICT TWG: is chaired by the Assistant Director Monitoring and Evaluation, It comprises M&E and ICT staff from health programs, M&E and ICT staff from government MDA, Funding and implementing partners, FBOs, Private Sector and CSOs. The M&E and ICT TWG work under of the Technical Committee of the Sector wide Approach (TC-SWAp). It is mandated to review M&E and ICT action plan and budget, implementation reports to assess achievements and constraints and give feedback to the M&E Consortium then recommend to the M&E and ICT Steering Committee before is presented to the TC – SWAp

M&E Consortium: The draft HIS policy guidelines also provide for M&E Consortium with membership from organizations involved in implementing or funding the M&E strategy. The M&E Consortium death with Technical issues, Develop plan and budget, and progress report writing.

PORALG: The role of PORALG is to coordinate implementation of M&E at the facility, council, and regional levels. PORALG also has responsibility to ensure that data collection systems are integrated; M&E officers are available at the regional and council levels; and IT support is linked and reports and profiles are shared.

Training institutions ensure that graduates of allied and health profession programs receive training on data collection, management, analysis, and use. In addition, training institutions will ensure that curricula are designed using the most current and relevant content related to data collection, management, analysis, and use. Mainstreaming courses in training institutions will reduce dependency on on-the-job training and workshops.

The NBS has a mandate to oversee all government statistics and a key role to play in the analysis and dissemination of health information. In addition, the NBS work with M&E Section conducts periodic Demographic health survey and health facility assessment.

The private sector is required to collect and report routine data to the council or to export data to DHIS2. The Christian Social Services Commission, the National Muslim Council of Tanzania, and the Association of Private Health Facilities in Tanzania are required to supervise their health facilities.

Development partners and other non-governmental organizations have a role to fund and provide technical support for an integrated health information system.

RITA has a role to ensure that birth and death reporting tools and systems are available to health facilities and wards. The MOHCDGEC ensures that some health facilities are designated as registration centres.

Reporting Arrangements

The M&E section of the MOHCDGEC, led by the assistant director, will be responsible for implementing the strategy. The M&E section will register all the health M&E stakeholders. A health M&E stakeholder will be defined as any institution/organization that supports or implements any health information activity under or in collaboration with the MOHCDGEC. A template will be prepared by the M&E section and posted in the observatory/portal for sending plans and reports to the M&E section.

Each Year, the M&E section will collate stakeholders' annual plans from the completed templates and prepare a consolidated national M&E annual plan. The plan will be discussed in the M&E and ICT TWG meetings to ensure

harmonization of activities before sending it to the Steering Committee for approval. The plan will be used as a guide for that year's M&E activities. Stakeholders will update the reporting template for collation by the M&E section. The consolidated quarterly report will be circulated to members before the quarterly M&E and ICT TWG meetings, at which concerns/issues raised in the reports will be discussed. Discussions will focus on achievement made against milestones, bottlenecks, and mitigation strategies. Resolutions passed, especially those requiring intervention from the higher level, will be sent to the Steering Committee for discussion and guidance or approval. At the end of the year, the M&E section will prepare an annual report based on the quarterly reports and share it with stakeholders.

The report will be discussed in the annual stakeholder meeting that will take stock of the achievements and bottlenecks as input into the next year's stakeholder plans.

In July 2025, the strategy will be reviewed to inform the preparations of M&ESI III (2025–2029), which will take the country toward achievement of the Vision 2025 goals.

Annex: Monitoring and Evaluation Framework, 2020 - 2025

Capacity strengthening	Key interventions	Outcomes	Activity	Outputs
Strategic Objective: Strengthen the capacity for implementing M&E at all levels	1. Strengthen leadership role	Key actors understand their roles and show evidence of commitment to fulfil them	<p>Enforce guiding documents for implementing M&E, including policy and policy guidelines, standards, and roles and responsibilities of various key actors</p> <p>Develop and orient stakeholders on policies, guidelines, and standards relevant to implementation of M&E (NHP, HIS guidelines, M&E strategy, DDU strategy, eHealth strategy, and DHIR)</p> <p>Enhance the coordination of M&E activities to address fragmentation of health information systems</p> <p>Support stakeholders to fulfil their roles as outlined in the policies, guidelines, and strategies (including M&E section, department and program M&E units, and M&E and ICT TWGs and Steering Committee)</p>	<p>There is evidence of key actors' commitment to fulfil their responsibilities</p> <p>Policy and strategies finalized and disseminated</p> <p>There is evidence that key actors understand and are fulfilling their roles</p> <p>Needs assessment conducted and recommendations implemented</p>

Capacity strengthening	Key interventions	Outcomes	Activity	Outputs
	2. Mobilize financial resource for implementing M&E at all levels	At least 10% of operational budget of the respective entity is allocated for M&E activities	Mobilize financial support for implementing information systems	At least 10% of operational budget of the respective entity is allocated for M&E activities
			Conduct needs assessment, prepare costed plan for HR capacity strengthening for health M&E, and use existing forums to market/disseminate the plan	Adequate funding available to support HR capacity strengthening
			Incorporate M&E costs in annual plans/budgets	% LGA that received funding for M&E activities in the respective year
			Coordinate partners to support HR capacity strengthening for health M&E	Forum exist that brings together stakeholders supporting HR capacity strengthening
	3. Health sector continues to advocate for and	% training centres and schools with	Course catalogue available in country and online (course must include examination)	Course catalogue available online

Capacity strengthening	Key interventions	Outcomes	Activity	Outputs
	support the inclusion of M&E competencies within health pre service training programs to ensure all new graduates can collect, analyse, and use health information to improve health services delivery.	HMIS trained tutors (disaggregated zone, private, region, district) % of health management training courses with HMIS integrated into the curriculum	Use existing system, or IVCT unit, to develop an eLearning platform to cater to the needs of different units to improve data analysis, interpretation, and use as well as constructive feedback (measure) Imbed developed courses in the existing systems for pre- and in-service training	Online/blended courses available
			Develop workbooks for specific HMIS topics to assist users with self-paced learning	Workbooks developed with specific HMIS topics
			Develop and disseminate training materials , including e-learning, for training on data analysis, use, and dissemination (including policy briefs)	Training materials, including digital, available for training on data analysis, use, and dissemination
			National-level staff at M&E and ICT sections and M&E units in national programs and agencies trained at masters level	Number of new M&E qualified staff by level

Capacity strengthening	Key interventions	Outcomes	Activity	Outputs
	4. Zonal training centres provide certification based M&E short-term training in data collection, analysis, interpretation, and use of health information to improve health services delivery through a systemic in-service training program	Number of HCWs who receive certification for M&E skills from Zonal training centres.	<p>Catalogue courses available in country and online (course must include examination)</p> <p>Develop online/blended courses to improve data analysis, interpretation, and use as well as constructive feedback measure (Involve Morogoro CTC and Open University)</p> <p>Imbed developed courses in the existing systems for pre- and in-service training</p>	<p>Courses catalogue available online</p> <p>Online/blended courses available</p> <p>Curricula revised to include courses in data analysis, dissemination, and use</p>
			<p>Develop workbooks for specific HIMS topics to assist users with self-paced learning</p> <p>Develop and disseminate training materials, including e-learning, for training on data analysis, use, and dissemination (including policy briefs)</p> <p>M&E masters for central staff with technical assistance replacement</p>	<p>Workbooks developed with specific HIMS topics</p> <p>Training materials including digital, available for training on data analysis, use, and dissemination</p> <p>Number of new M&E qualified staff by level</p>

Routine HMIS	Key interventions	Outcomes	Activity	Outputs
<p>Objective: Improved efficiency of HMIS and processes to meet all health sector M&E requirements</p>	<p>1. Continue to expand and maintain the decentralized HMIS to ensure all data are collected at health facilities</p>	<p># and % of facilities with timely and complete HMIS reports (disaggregated by disease program). Total number of data elements reported across all paper tools (excludes data elements automatically submitted to DHIS2)</p>	<p>Training CHWs and new HCWs on use of paper tools and use of DHIS2 by new district and regional officials</p> <p>Continuous professional development on MTUHA and DHIS2 (refresher training, more training to improve data quality, revised books, additional CHMT and health staff)</p>	<p>% LGAs reporting to conduct training of CHWs and new HCWs each quarter</p> <p>% LGAs reporting to provide refresher training to HCWs each quarter</p>

Routine HMIS	Key interventions	Outcomes	Activity	Outputs
	<p>2. Align the processes of developing and reviewing indicators and of data collection to reduce burden on health workers</p>		<p>Annual review of HMIS tools to integrate paper tools (include all disease programs, DSW, WASH). Reduce data reported over time to reduce impact on HCW shortage</p>	<p>Annual review report posted on MOHCDGEC website includes summary of change requests and soft copy of updated tools</p>
			<p>Update of Tanzania ICD-10 codes list, guidelines for causes and coding and related training</p>	<p>Updated ICD codes list</p>
			<p>Develop a comprehensive guideline and training materials and train health workers on ICD-10</p>	<p>Death reports are accurately, complete, and timely</p>
	<p>3. Support procurement of data collection materials and equipment</p>	<p>Facilities and districts have adequate equipment to implement collect and report MTUHA data</p>	<p>Support printing and distribution of data collection tools</p>	<p>All facilities have the required paper tools</p>
			<p>Support purchase of motorcycles for district HMIS focal persons</p>	<p>All district HMIS focal persons have functioning motorcycles</p>

Data quality	Key interventions	Outcomes	Activity	Outputs
<p>Objective: Strengthen accuracy, completeness, and timeliness of data.</p>	<p>1. Institutionalize HMIS data quality: Strengthen accuracy, completeness, and timeliness of data in the health facility lifecycle</p>	<p># and % of HMIS reports received that have 0 unconfirmed validation errors and 0 unconfirmed outliers.</p>	<p>Measurement of data quality incorporated into BRN star rating and RBF</p>	<p>Star rating and RBF tools have data quality checks</p>

Data quality	Key interventions	Outcomes	Activity	Outputs
		<p>% of sampled facilities passing external data quality audit.</p>	<p>Incorporate mechanisms for data validation in routine activities (e.g., supportive supervision) including comparison of reported data to facility-level registers and results of comparison recorded on supportive supervision forms and entered into DHIS2</p>	<p>Data quality checks integrated into routine supportive supervision tool</p> <p>Data quality checks done as a routine activity at all levels</p> <p>DQA and SS results are shared internally and externally and used in improving subsequent supervision (through DHIS2 and paper-based feedback reports)</p> <p>Data quality issues discussed in routine meetings and workshops</p>
			<p>Use the existing meeting/workshop to share the quality of data collected by facilities (DRMs incorporated into routine meeting agendas at all levels)</p>	

Data quality	Key interventions	Outcomes	Activity	Outputs
			<p>Integration of surveillance or survey data into DHIS2 to support triangulation and data quality review</p> <p>Include data quality accountability in roles and responsibilities for health sector workers</p> <p>Incorporate data quality checks and improvement in supportive supervision and mentoring activities.</p>	<p>Surveillance and survey data in DHIS2</p> <p>Job descriptions of health sector personnel have data quality as a responsibility</p> <p>Evidence of follow up with low performing districts.</p> <p>Quarterly dissemination of summary of HF and council performance disseminated to all districts, regions, MDAs, and the M&E TWG</p> <p>% of sampled HFs undergoing external data quality audit</p> <p>% of sampled facilities passing external data quality audit</p>

Data quality	Key interventions	Outcomes	Activity	Outputs
	<p>2. Strengthen the M&E framework that promotes, assesses, and tracks data quality in the health sector, including data quality definition, DQA methodology, tools, and use that meet the M&E TWG requirements (internal and external stakeholders)</p> <p>3. Motivate data quality improvement by incentivizing health care workers (e.g., publishing DQA results,</p>	<p>Data quality verification measures assessed during either the supportive supervision visit or within the BRN star rating.</p>	<p>Include data quality measurement in facility, district, and regional health profiles</p> <p>Develop/review and enforce the use of tools for data quality improvement (e.g., data triangulation and automated interpolation)</p> <p>MOHCDGEC introduces penalties or punitive measures for intentional false reporting and false reporting related to gross negligence</p> <p>Ensure RHMTs and CHMTs abide to the minimum number of DQAs to be conducted annually</p> <p>Host a competition that rewards good examples of how improving data quality has had an impact on health service delivery at facilities or on programming of health funds at the district or regional level. Use</p>	<p>% HF/council/regional health profiles showing data quality measurements</p> <p>Data quality improvement tools developed/reviewed that incorporate data triangulation and interpolation</p> <p>Deterrent penalties introduced and availability of evidence of action taken against culprits</p> <p>Completed calendar for all internal and external DQAs by level by year</p> <p>DQA is one of the criteria for scoring in RBF and SRA</p> <p>Competition held and winners selected</p>

Data quality	Key interventions	Outcomes	Activity	Outputs
	incorporating DQA results into RBF)		<p>DQA performance as criterion for rewards in RBF</p> <p>Post information on DQA performance in the national health portal/observatory</p>	<p>The national health portal/observatory shows data quality measurements</p>

Data Dissemination and Use	Key interventions	Outcomes	Activity	Outputs
<p>Objective: Strengthen capacity for data analysis, dissemination, and use for evidence-based decision making and accountability</p>	<p>1. Strengthening policy, guidelines, legal frameworks, and roles and responsibilities to facilitate data use and accountability for evidence-based decision making by all stakeholders.</p>	<p>DDU guiding documents available and disseminated at all levels</p> <p>Policy decisions made based on evidence (using policy briefs and interpreted health information)</p>	<p>Finalize and disseminate national HIS policy to guide data ownership, flow, dissemination, and information use</p>	<p>DHIS2 is used as main source of information</p> <p>Reduce the number of parallel systems or multiple reporting</p> <p>Reduce reporting burden on HCWs</p>
<p>2. Strengthen DDU capacity for all health sector stakeholders to ensure regular detailed analysis and interpretation (include estimate and projections, interpolation for</p>	<p>LGAs achieving desired level of data use using MOHCDGEC DDU monitoring tool</p> <p>% regions, LGAs, and vertical programs with evidence of providing feedback to lower levels as part of the</p>	<p>DDU strategy published and disseminated</p> <p>Finalized DDU monitoring Tool</p> <p>Promote and support forum for information translation and communication to policy makers, including the NAHEPO</p> <p>Train MOHCDGEC central-level staff on data analysis, use, and dissemination</p> <p>DDU training for RHMTs and CHMTs</p>	<p>Forum needs identified and support provided</p> <p>Attendance and evidence of using training materials/outputs</p> <p># of people trained</p>	

Data Dissemination and Use	Key interventions	Outcomes	Activity	Outputs
	<p>missing data, in-depth studies, assessment of progress, and performance and efficiency of health systems using existing data and international best practice)</p>	<p>supportive supervision documentation and follow up</p> <p>Number/percentage of facilities that can provide an example of a change in service delivery practice as a result of data review (the data reviewed and used for this activity will need to be specified)</p>	<p>Allow health service managers at all levels to have real-time access to DHIS2 and use it to analyse data</p> <p>Train health managers to conduct regular disaggregated data analyses (by age, gender, location, and wealth quintile)</p> <p>Institute and implement rewarding mechanisms, such as effective use of OPRAS and RBF, to motivate HCWs to make evidence-based decisions</p> <p>Support regions to create RHPs</p> <p>Support districts to produce their own DHPs</p> <p>Rollout DHP training to all districts</p>	<p>Health service managers analysing data using real-time DHIS2 data</p> <p>Health service managers at all levels analyse data disaggregated by equity dimension</p> <p>Rewarding mechanisms (including OPRAS and RBF) assess and reward evidence-based decision making and accountability</p> <p>% of regions developing RHPs annually</p> <p>% of districts developing DHPs yearly</p> <p>% of districts developed their DHPs yearly</p>

Data Dissemination and Use	Key interventions	Outcomes	Activity	Outputs
			<p>Rollout DHP training to all districts</p> <p>Identify and develop/package information products such as showcases, best practices, profiles, statistical abstracts, and publications on lessons learned</p> <p>Rollout annual Health Facility Profile (HFP) to all health facilities</p> <p>Disseminate health information packages using a wide range of approaches to reach a larger audience</p> <p>Support dissemination forums aimed at discussing progress in health service provisions in the regions (regional commissioner/regional administrative secretary meetings with RHMTs/CHMTs)</p> <p>Develop and implement mechanism to obtain feedback from the community/users of health information</p>	<p>% of districts developing DHPs yearly</p> <p>Information products (publications, abstracts, policy brief) developed</p> <p>% of health facilities developed their HFP yearly</p> <p>Information products accessible from the national health portal/observatory</p> <p>Council-, regional-, and national-level meetings are guided by evidence</p> <p>Lessons from feedback are documented and there is evidence of</p>

Data Dissemination and Use	Key interventions	Outcomes	Activity	Outputs
				action being taken
	3. Improved coordination of DDU systems, activities, and stakeholders	A functioning forum exist to discuss and agree on matters pertaining to DDU	<p>Coordinate support for the development and implementation of the Tanzania health portal</p> <p>Analysis of Hospital Mortality Prevalence and Trend</p> <p>Document and share Tanzania M&E SF good practices internationally</p>	<p>Stakeholder forum exists and meets regularly</p> <p>Mortality data shared with WHO</p> <p>M&E SF experiences documented, presented at international conferences, and published</p>

Surveillance	Key interventions	Outcomes	Activity	Outputs
<p>Objective: Surveillance activities implemented and reports released according to five-year surveillance plan.</p>	<p>1. Support eIDSR to be implemented in all regions in the country</p>	<p>Surveillance reports disseminated within 12 months of data collection</p>	<p>Support mobilization of funds to expand eIDSR to cover the whole country</p>	<p>Improved reporting rate</p>
	<p>2. Expand eIDSR scope to include tracking community-based mortality data</p>		<p>Develop and implement guidelines for community-based data collection and reporting of health data</p>	<p>Weekly data reported in DHIS2</p>
	<p>3. Strengthen disease-specific surveillance systems to collect important data for monitoring national programs (e.g.</p>		<p>Coordinate community-based data collection initiatives</p>	<p>Guidelines for collection and reporting developed and implemented</p>
			<p>Transition from ANC surveillance to use of PMTCT data to provide annual information on HIV prevalence among pregnant women</p>	<p>Forum for stakeholders implementing community-based interventions created and functioning</p>
			<p>Transition from ANC surveillance to use of PMTCT data to provide annual information on HIV prevalence among pregnant women every year within six months of year's end</p>	<p>NACP publishes trends in HIV infection among pregnant women every year within six months of year's end</p>

Surveillance	Key interventions	Outcomes	Activity	Outputs
	<p>HIV/AIDS; case detection and drug resistance in TB; MPDSR in RCH)</p>		<p>NACP to conduct drug resistance study every two years (including transmitted drug resistance and acquired drug resistance) that is published in the drug resistance report</p> <p>Conduct hot spot surveillance for HIV</p>	<p>Drug resistance reports published in 2016, 2018, and 2020 up to 2024</p>
			<p>Population HIV surveillance results are used for incidence modelling, and platform is used for validating recent HIV infection assays</p>	<p>Population HIV surveillance results are used for incidence modelling, and platform is used for validating recent HIV infection assays</p>
			<p>Conduct HIV key population size estimations</p>	<p>Key population size estimation report</p>
			<p>Conduct HIV incidence survey</p>	<p>HIV incidence survey report</p>
			<p>Conduct HIV case-based surveillance (using biometric markers to uniquely identify cases)</p>	<p>HIV case surveillance report</p>
			<p>Conduct malaria surveillance</p>	<p>HMIS monthly reports and DHIS2 weekly reports</p>

Surveillance	Key interventions	Outcomes	Activity	Outputs
			<p>Implementation of case-based TB and leprosy electronic system (Under DHIS2)</p> <p>NTLP conducts TB drug resistance survey every five years</p> <p>Conduct PST and drug resistance survey</p> <p>Conduct EPI surveillance</p>	<p>Therapeutically efficacy and insecticide resistance testing, community malaria control monitoring reports</p> <p>Parasitaemia survey and entomological surveillance reports</p> <p>School malaria prevalence survey report</p> <p>Quarterly district data reports submitted to national level</p> <p>TB drug resistance survey reports published in 2018</p> <p>PST and drug resistance survey report</p> <p>EPI surveillance report</p>

CRVS	Key interventions	Outcomes	Activity	Outputs
<p>Objective: Improve registration of births and deaths in Tanzania</p>	<p>1. Continue SAVVY surveillance and ensure data are available to all stakeholders with full data element definition and data assumptions</p> <p>2. Collaboration among RITA, MOHCDGEC, and PORALG</p>	<p>Raw data sets made available to stakeholders via MOHCDGEC data web-portal at least every six months</p> <p>Proportion of births that are registered</p> <p>Proportion of deaths that are certified</p>	<p>Support RITA to accelerate the registration in Tanzania through the Under Five Birth Registration Initiative in HFs</p> <p>Support RITA to expand birth and death registration systems</p> <p>SAVVY and HDSS results for causes of death and other health statistics included in health sector performance profile and data sets available to all in line with open data principles</p> <p>RITA, MOHCDGEC, and POPSM collaborate to leverage presence and capacity of all three MDAs to increase percentage of registered births</p> <p>Prepare policy brief based on CRVS report</p> <p>Vital registration workshop held every year</p>	<p>Number of districts registering under-fives</p> <p>% births for under five registered % deaths registered</p> <p>Health sector performance profile report produced annually contains data from SAVVY and HDSS</p> <p>A functioning coordinating forum exists with full participation from all parties</p> <p>Policy briefs developed</p> <p>Workshop proceedings</p>

Population and Facility-Based Surveys	Key interventions	Outcomes	Activity	Outputs
<p>Objective: Coordinated approach to facility surveys and operational research across MDAs and timely dissemination of results and sharing of survey data sets</p>	<p>1. Coordinate support for review of indicators and methods and implementation plans for the surveys</p>	<p>Number and percentage of surveys disseminated (report prepared, CDs, media coverage, brochures etc.) within 12 months of HSSP scheduled completion</p>	<p>Finalize the 10-year survey plan</p> <p>Create a forum to finalize approach to annual facility assessments and update methodology for integrated assessments across health sector</p> <p>Create a forum to harmonize definition and disaggregation across surveys</p> <p>Coordinate annual data collection and verification of HF service area population data sets (involving MOHCDGEC, PORALG, NBS and health sector stakeholders, district medical officers, and district planning officers)</p> <p>Review survey plans annually at M&E and ICT TWG meetings</p>	<p>10-year plan approved</p> <p>Finalized plan integrated into 10-year survey plan</p> <p>Common definitions for data and indicators to allow for correlation</p> <p>Revised service area population data sets entered in DHIS2 and the HFR</p> <p>Revised annual survey plan</p>

Population and Facility-Based Surveys	Key interventions	Outcomes	Activity	Outputs
			<p>Implement each survey per plan (ensure kick-off includes PORALG, NBS, MOHCDGEC, Ministry of Land (maps/demarcation))</p> <p>Create a working group with PORALG, NBS, and other stakeholders to develop requirements for a single geographic administration authority and identify how to implement this system</p>	<p>Survey report disseminated</p> <p>Geographic administration registry information system operational</p>
	<p>2. Coordinate support on health systems research to address M&E operational and implementation bottlenecks</p>	<p>Number of operational research studies conducted</p>	<p>Set local research agenda for M&E</p> <p>Coordinate local research funding for health sector M&E from various sources</p> <p>Support/facilitate operational research in the regions/districts</p>	<p>Research agenda documented</p> <p>Funding available for operational research in M&E</p> <p>Operational research conducted and results shared</p>

Population and Facility-Based Surveys	Key interventions	Outcomes	Activity	Outputs
<p>Coordinated approach to sustaining and increasing use of survey data (e.g., DHS, TAIS) correlated to routine data</p>	<p>3. Conduct in depth analyses based on the surveys and other sources and use findings to obtain nationally representative evidence on population health status</p>	<p>Analytical review report/document</p>	<p>Create a forum to conduct in-depth analyses and provide nationally representative evidence on community health status and vital statistics</p>	<p>Document outlining health status based on survey data</p>

ICT	Key interventions	Outcomes	Activity	Outputs
<p>Objective: Integrate more programs in the health sector in DHIS2 and introduce multiple modes for data entry based on emerging technology trends</p>	<p>1. Strengthen HMIS to ensure digitalization of all data collected at health facilities and in the community and a flexible data warehouse that is integrated with other data sources and related systems (including electronic registers for aggregate data, use of electronic medical records with automated aggregate reporting, and ODK to collect and transmit data from the community)</p>	<p># priority HIS systems integrated successfully with DHIS2</p> <p>Increase in the number of health facilities and villages using electronic systems and submit electronically aggregated data to DHIS2</p>	<p>Training regional and district hospitals on using DHIS2 and GoT-HOMIS for reporting</p> <p>Develop and implement registries (GoT-HOMIS, HOMIS)</p> <p>Prepare data requirement and work with MOHCDGEC ICT section to perform DHIS2 modifications (including stakeholder meetings to discuss new developments)</p> <p>Orientation workshops with national and other programs (e.g., DSW, WASH) on DHIS2</p> <p>Prepare data requirements and work with ICT unit to integrate HIS with DHIS2 from national programs (include HR, drugs and commodities distribution, finance, PlanRep, Epicore, Tanzania, train smart, health insurance data (CHF/ITIKA))</p>	<p># HCWs using DHIS2</p> <p># of facilities using GoT-HOMIS</p> <p>% of HFs implementing GoT-HOMIS</p> <p>DHIS2 features expanded and maintained</p> <p># personnel in the respective departments using DHIS2</p> <p>DHIS2 integrated with administrative systems</p>

ICT	Key interventions	Outcomes	Activity	Outputs
			<p>Support updating and use of RMNCH</p>	<p>RMNCH scorecard integrated into HMIS/DHIS2 that includes an action points interactive interface</p>
			<p>Integrate MPDSR data into the HMIS/DHIS2 electronic database at the Council level</p>	<p>MPDSR data integrated into the HMIS/DHIS2 electronic data base at the council level</p>
			<p>Pilot and roll out an electronic data collection system for RMNCH at all tertiary and secondary level facilities to replace the paper-based system for services data collection.</p>	<p>Electronic data collection system for RMNCH at all tertiary and secondary level facilities rolled out</p>

ICT	Key interventions	Outcomes	Activity	Outputs
	<p>2. Expand use of mobile technologies and internet-based information systems</p> <p>to contribute to remote data collection, automated collation of data, and feedback to users and assist in the integration of health data with DHIS2</p>	<p># facilities reporting using the mobile-based application</p> <p>disaggregated by eIDSR and other new mHealth applications</p>	<p>Use existing mHealth platform in reporting</p> <p>Scale up CRVS for data capture at the community level taking advantage of the new cadre of trained CHWs</p>	<p>mHealth platform utilization</p> <p>% of villages reporting using CRVS</p>
	<p>3. Mobilize funding to incrementally computerize HFs (to include equipment and training)</p>	<p>% of HFs reporting using electronic devices</p>		

