



MINISTRY OF HEALTH DEVELOPMENT
REPUBLIC OF SOMALILAND



HMIS REVIEW AND ASSESSMENT REPORT

Technical support from UNFPA





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Foreword

Health Management Information System (HMIS) is an indispensable element for evidence-based decisions, development of sound policies and plans; and transforming the decisions into actions. Building a robust intelligence for health sector has been a top priority for the Government of Somaliland. In the past two years, the Ministry of Health Development (MoHD) has been advocating for the renovation of the HMIS through system building, improving of data platform, tools and data quality to ensure the evidence decision making.

This assessment is first of its kind and is a part of Ministry's efforts to evaluate HMIS and find out the weaknesses, gaps and develop a concrete action plan to address the identified issues. The report of this assessment will be a reference and will guide the ministry and the partners as well when taking actions directed to improve the HMIS. Also, the report unfolds issues surrounding the HMIS components such as human resource and finance, tools and platform, strategic documents and structure. Moreover, the high priority areas of the HMIS that requires immediate actions have been identified in the report.

Firstly, I would like to thank the director of planning, policy and strategic information of Ministry of Health Development (Mr. Saed M. Solomon) for his leadership and commitment in ensuring this assessment takes place successfully. My thanks also go to Mr. Nasir M. Ahmed (National HMIS manager) for his critical role of coordinating, technical contributions, assembling of participants, and ensuring the success of the assessment. I would also like to thank Mr. Mohamed A. Hussein (Health system strengthening lead) for his technical contributions in the assessment and drafting of this report as well.

Secondly, I would like to give my deep appreciation to UNFPA for providing technical and financial support to this assessment particularly Mariam Alawi (Head of population development unit) for her commitment to support this valuable exercise. I would like to thank the UNFPA Hargeisa leadership as well the UNFPA technical team who have made valuable contributions to this assessment; namely Faisa Ibrahim (Assistant representative/Head Office, UNFPA Hargeisa), Ahmed Mihile (Program Specialist, UNFPA), (Mr. Felix Mulama (Demographer, UNFPA), Mr. Khadar Gahayr (Statistician UNFPA), Richard Ng'etich (Statistician UNFPA) and Felix Warentho (Designer, UNFPA).

Finally, I would like to thank all the HMIS participants from the national, regional and the districts as well for their participation and contributions to this assessment.



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ACRONYMS

dhis2	District Health Information System 2
DHMIS	District Health Management Information System
DQA	Data Quality Audit
DQIP	Data Driven Quality Improvement in Primary Care
EPHS	Essential Package of Health Services
EPI	Expanded Programme on Immunization
FCDO	Foreign, Commonwealth & Development Office
GAVI	Global Alliance for Vaccines and Immunization
GF	Global Fund
GIS	Geographic Information System
HFs	Health Facilities
HIS	Health Information System
HMIS	Health Management Information System
HMN	Health Metrics Network
HNQIS	Health Network Quality Improvement System
HPA	Health Poverty Action
HSSP	Health Sector Strategic Plan
ICDF	Taiwan International Cooperation and Development Fund
IPD	In Patient Department
LHWS	Lady Health Workers
MoHD	Ministry of Health Development
NDP	National Development Fund
NHMIS	National Health Management Information System
NSDS	National Strategy for Development of Statistics
OPD	Out Patient Department
OT	Operation Theatre
PHU	Primary Health Unit
PSI	Population Services International
RDQA	Routine Data Quality Assessment
RHMIS	Regional Health Management Information System
RSSH	Resilience Sustainable Service for Health Grant
SHINE	Somali Health Nutrition
SOP	Standard Operating Procedures
SRCS	Somali Red Crescent Society
SWOT	Strengths, Weaknesses, Opportunities and Threats
TB	Tuberculosis
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Introduction of HMIS

Definition of HMIS: Health information described as the “foundation” for better health, as the “glue” holding the health system together, and as the “oil” keeping the health system running

Objective of HMIS: The ultimate objective of a health information system is to produce high quality Data, Transform Data into information for taking action in the health sector and ensure continues information use.

Function of HIS: The main function of a HMIS is to indicate through continuous analysis of the situation and performance of the health services, the action or adjustments needed in order to meet specified goals.

Key Domains of HMIS:

Health Determinants: HMIS should provide information relating determinants of health e.g. Socioeconomic, environmental, and behavioral factors

Health System Inputs: The structures and processes of the health system, health infrastructure including facilities, policy and Plans, human and financial resources

Health System Outcome: HMIS should provide information relating outputs appeared and related utilization e.g. the quality and availability of Health services, services utilization

Health Outcome and Impact: HMIS should provide information relating short-term changes and long- term impact e.g. Mortality, morbidity, disease outbreaks, and health status

Core HMIS Components:

According to HNM

HMIS Resources: Human Resources, Financial resources, coordination, infrastructure and other material resources e.g. policies, Plans, strategies, SOPs, Guidelines, case definitions, data collection tools, reporting forms, standard reporting format for different levels, Job descriptions, relevant legislations

HMIS Indicators: HMIS should have standardized data elements to be recorded from clients/patients provider interactions at the health facilities. It should also have standardized indicators to be monitored overtime

HMIS Data Sources: HMIS should have sources of data. Data sources can be either intuitional-based data sources that generates administrative data or population-based data sources e.g. census, vital statistics, household survey,

HMIS Data Management: HMIS should have mechanism for data management at all HMIS pipelines: at collection, compilation, reporting, quality checking, feedback exchanges.

HMIS Information Product: HMIS should analysis raw data into useful information, interpret, triangulate with other relevant available information and come up evidence that can influence perception of decision makers.

Data Dissemination and Use: HMIS should share information, advocate improving culture of information use at the different administrative levels

Benefits from Investing HMIS:

Investing in the development of effective health information systems would have multiple benefits and would enable decision- makers at all levels to;-

Detect and control emerging and endemic health problems, monitor progress towards health goals; and promote equity.

Strengthen the evidence -based for effective health policies; permit evaluation of scale- up efforts; and enable innovation through research;

Improve governance; mobilize new resources and ensure accountability in their use;

Frequently monitor short-term programme outputs and support performance-based resource allocations

Enhance reporting of health outcomes to monitor Global Health Goals SDGs, UHC

Provide a foundation for sound informed decision-making

Overview of the HMIS assessment

HMIS supports informed strategic decision making through the production of quality data and information for action that helps managers and health workers plan and manage the health service delivery for the country. Improving HMIS is therefore critical for planning, policy and evidence-based efforts towards improving healthcare services. HMIS is an integral part for the health system and in particular governance for health. From using excel sheets as data platform to an advanced dhis2 platform, the Somaliland health information system has made significant improvement in the past few years.

Despite the enhancement that HMIS has made in the past few years, there is room to further accelerate the continuum development of the system. The Somaliland national health policy underscores the importance of health information and the need to strengthen the HMIS functions such as plans, strategies, data quality, dissemination and use.

The MoHD with the support of UNFPA has conducted an extensive workshop to review and assess the current status of HMIS, identify its weaknesses and gaps as well as opportunities for improvement. The assessment reviewed the health information system entirely and found out the drawbacks, gaps and overall challenges that impede the HMIS functioning at the national, regional, district and facility levels.

Purpose:

The primary objective of this assessment was to review and identify the HMIS weaknesses, challenges and gaps and develop a priority action plan. Additionally, the assessment did look at the HMIS strengths and opportunities available which can be exploited to enhance the system.

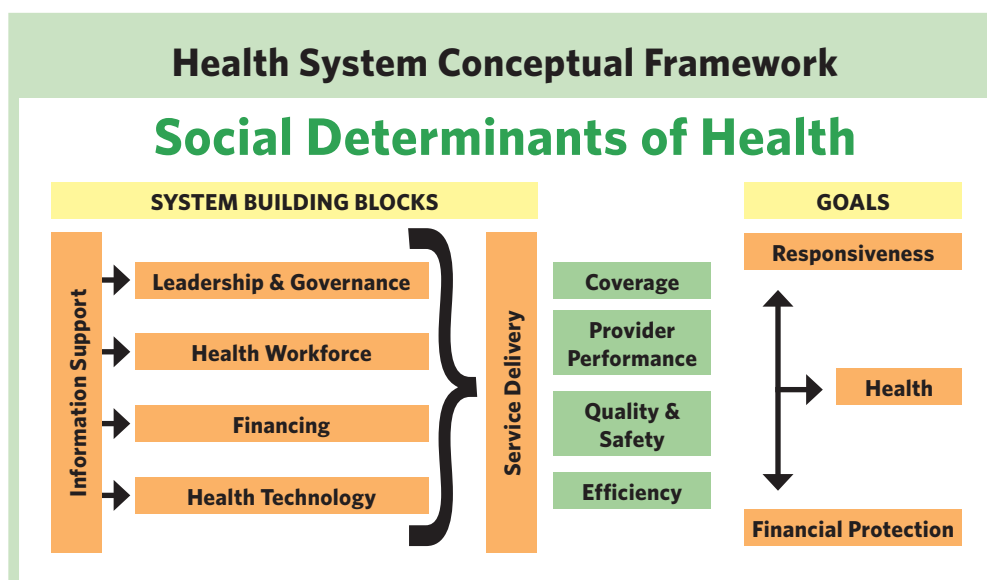
Assessment Methodology:

The performance of HMIS can be evaluated using either self-assessment approach or independent approach. The HMIS assessment was conducted using a combination of both approaches through workshop presentations, group discussions, plenary sessions and review of key existing documents and tools.

The assessment was led by the technical team from the population development unit of UNFPA. The HMIS teams from national, regional, hospital data officers, and district levels participated in the assessment. Additionally, technical members from the national Ministry of health also participated. During the assessment, the technical team leading the assessment used the Health Metrics Network (HMN) to identify the major gaps and challenges of the HMIS and develop a priority action plan.

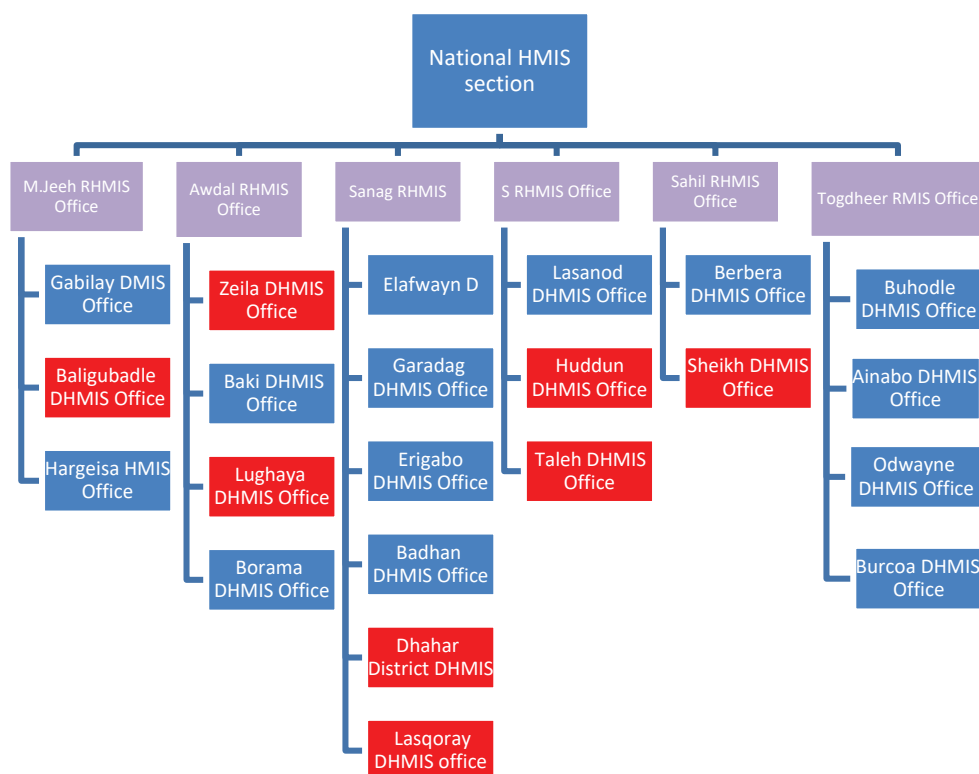
Current status of the Somaliland HMIS:

The HMIS of Somaliland has been transformed and made remarkable improvement in the last decade. It has been a critical instrument for the health system reforms, evidence-based decisions, policy development, and service quality improvements that have taken place in the last few years. As shown in the below conceptual framework for the health system building blocks, the health Information is vital for strengthening the other components of the health system which contribute to the yielding of better service delivery.

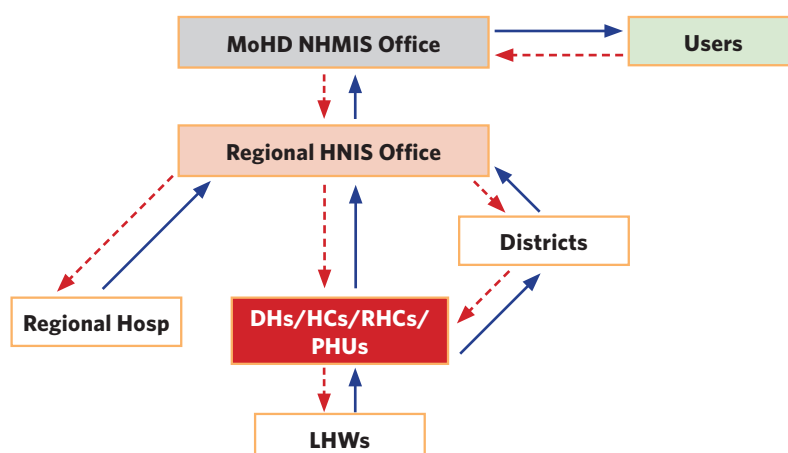


Despite the significant progress made by the HMIS, there are still areas that require prodigious attention and further strengthening. To draw a good picture of the current situation of HMIS in Somaliland, the items outlined below entail the existing capacities related to key components of HMIS such as the structure, reporting mechanism, tools and system, strategic HMIS documents, coordination, human resource, finance, health facilities reporting to the DHIS, and HMIS reports.

Structure: The HMIS is structured in the form of national, regional, and district levels. In each level, there are units and subunits that are embedded. Each level of the three different management levels is supporting each other to ample the information chain. The below picture indicates the current HMIS structure which consists of the national, regional and district levels.



Reporting mechanism and data flow: The current practice of HMIS data flow is based on the mechanism where facilities generate the data and report either to district or regional level using hardcopy of summary reports or directly to the dhis2 where facilities have capacity. Practically, the regional level is a key junction where data is verified before it goes to the national level; and the data entry occurs in some of the districts where there is manpower, capacity and equipment. Information from the community is collected by the female/village health workers and is reported to the facilities or to the districts. Additionally, the communication mechanism also comes from the higher levels to the lower levels where there is two-way feedback mechanism.



Tools and systems in place: There are standardized registers at the health facilities which contain minimum data elements to be recorded from patients/clients during healthcare provision. HMIS also, has standardized monthly summary reporting forms used for aggregating the data recorded in the registers. The data aggregated in the summary forms will be transferred into the database called dhis2 either at district level or regional level.

HMIS key documents: The National Health Policy, Health Sector Strategic Plan (HSSP-2022-2026), National Development Plan (NDP III), National Statistics Act, National Strategy for Development of Statistics (NSDS) and emphasize the importance of the HMIS. However, the Somaliland HMIS does not have the specific strategic and operational documents such as HMIS strategy plan, policy, SOP or legal support.

Coordination: There is a HMIS coordination meeting held at the national level which focuses on the data quality, feedback and other pertinent issues including overall achievements, and plans for the next quarter. It is important to note, the regional HMIS coordination meetings are not held due regularly due to lack of finance support.

Human resources and finance: skilled, motivated workforce are crucial for undertaking routine HMIS activities and improving its performance to the next level. Currently, there are HMIS central office, 6 regional offices, 6 Hospital offices, and 14 out of 22 district HMIS offices that report. However, the most 14 districts do not have an office space and necessary equipment to operate independently. The HMIS receives limited financial support from Global Fund (GF) Malaria grant particularly Resilient and Sustainable Services for Health grant (RSSH). This fund is limited and only provides incentives for some HMIS officers, quarterly feedback meeting at national level and supportive supervision.

Health facilities reporting to HMIS: The table below indicates the total number of functioning public health facilities that report to HMIS. Overall, all public health facilities report to HMIS apart from Primary Health Units (PHUs) of which only about 20% report to HMIS currently.



S/N	Description	Quantity
1	Health Centers	255
2	Regional Hospitals	6
3	District Hospitals	20
4	Primary health Units	118

Key partners supporting the HMIS

In collaboration with the Ministry of health development, the supporting partners have been instrumental for improving and transforming the Somaliland HMIS in the past decade. The partners have mainly been supporting the capacity building of HMIS staffs, development of tools, and platforms; and HR costs for some staff.

During this assessment, the following partners were identified as currently providing some support for the HMIS:

- | | |
|------------------|----------------------|
| I. UNICEF | V. Taiwan |
| II. UNFPA | VI. GAVI-DQIP |
| III. HPA | VII. PSI |
| IV. SRCS | |

HR support

The six regional HMIS officers receive HR support from the partners. The Global Fund under the Malaria RSSH grant is the main source of funding that supports the regional HMIS officers except Sahil region and some officers from the national HMIS as well. Additionally, some HMIS officers from the districts and Sahil regional HMIS officer receive incentive from the Somali Health and Nutrition Programme (SHINE) that is funded by Foreign Commonwealth and Development Office (FCDO).

Level	Number of people	Type of support	Funding source	Partner managing fund
National HMIS office	3	HR support	Global fund	UNICEF
Regional HMIS officers of Marodijeh, Awdal, Togdher, Sanaag and Sool	5	HR support	Global fund	UNICEF
Regional officer of Sahil	1	HR support	SHINE	HPA
District HMIS officers of Buhodle, Burao	2	HR support	SHINE	HPA
District HMIS officer Erigavo,	1	HR support	SHINE	SRCS
Total	12			



There are 17 district HMIS officers who do not receive HR support and office support across the country from the following districts.

Regions	District without support
Awdal	1. Lughaya 2. Baki 3. Zeila 4. Borama
Marodijeh	5. Balligubadle 6. Gebiley 7. Hargeisa
Sahil	8. Sheikh 9. Berbera
Togdher	10. Odweyne 11. Ainabo
Sool	13. Taleh 14. Huddun
Sanaag	15. Badhan 16. Dhahar 17. Las-qorey 18. Eil-afweyn 19. Gar-adag

However, the available additional resources to support the other key essential HMIS activities is meager at the moment and there are other critical activities which have limited or no financial support. Currently the funds available for the HMIS tools is irregular, very minimum and all facilities experience constant stock out of HMIS tools. Moreover, there is no support for conducting routine data quality assessment which are vital for improving data and service quality.

Health Management Information System SWOT analyses

Strengths	Weaknesses
<ul style="list-style-type: none"> • HMIS offices are established at national, regional and district levels • Standard HMIS tools for recording and reporting exist • Majority of the HMIS staffs at all levels are capacitated in dhis2 platform navigation and use • Availability of ministry owned dhis2 cloud server • Capacity in data analysis and interpretation using dhis2 and excel • HMIS staff available in every district despite lack of incentive in majority of the districts • Availability of trained staff for HMIS in every health center and public hospitals across the country • Availability of dhis2 platform for management of health facility data 	<ul style="list-style-type: none"> • Limited financial support for HMIS • Most of DHMIS offices functioning with extreme challenge (Furniture, internet and computers) • Lack of motivation or incentive for most DHMIS and Hospital HMIS officers • Most of PHUs do not report to HMIS (only 20% report currently) • With except of few hospitals, all the private health facilities do not report to the HMIS • Regular HMIS tools stock out. • Most of HMIS core documents such as SOP, HMIS Policy, strategic plan, indicator reference manual, DQA guidelines, data dissemination guideline, standard case definitions either do not exist or are in draft form. • Poor practices of data dissemination and use • No standard format for HMIS quarterly and annual reports • No, monitoring framework/assessment • Poor data feedback mechanisms at all levels (lack of written feedback) • Some programs report to other platforms which outside of dhis2 [parallel reporting] e.g. TB, nutrition • Population challenges [population figure available is based on estimation and overestimated or underestimated due to inaccurate catchment population] • Some important features in dhis2 are underutilized e.g. data quality validation, GIS, tracker captures. • District HMIS offices are partially functioning
Opportunities	Threats
<ul style="list-style-type: none"> • Large private facilities network to engage • Donor's commitment to support HMIS. • Free and easily accessible online trainings for dhis2 • Community participation Health activities (community Surveillance) • Media • Growing information demand 	<ul style="list-style-type: none"> • Unwillingness the private sectors to collaborate to HMIS system • Over reliance of external support • Tendency to create new and parallel platforms whenever new program emerges

Key challenges and gaps of the HMIS

There are challenges and gaps pertaining to the HMIS that have been identified during the review and assessment workshop. These common challenges were noted in the different management levels of the health information system. The identified challenges are grouped based on the core HMIS components as shown in the below table.

HMIS core component	Challenges/gaps
Resources	<ul style="list-style-type: none"> • Lack of HMIS training for the new health facilities • District HMIS officers do not have offices with basic equipment e.g. computers, tables, chairs etc. • Shortage of HMIS trained staff at the health facilities [Only team leader has the capacity] • Limited or no financial support for the HMIS staff at the districts and hospitals • High turnover of trained staff in the hospital wards [regional hospitals] who often are not the designated HMIS officers. • Inadequate number of days for visiting health facilities when conducting quarterly supportive supervision [only five days] • Limited or lack support for internet, airtime and stationery in most offices • Irregular weekly surveillance reporting • Weakness identified on HMIS OPD registers e.g. insufficient row and column size to capture all required information and no columns for capturing signs and symptoms of the patient. • Regular stock outs for HMIS tools • No summary form for mental health hospitals/departments • Lack of separate summary form for operation theatre in dhis2, hence not possible to report types of operations conducted • Laboratory summary forms cannot capture some of the specific types of diseases investigated • Challenges filling too many summary forms [eight] • Registers and forms used by some of the programs are not aligned with the dhis2 format e.g. TB registers and summary forms
HMIS indicators	<ul style="list-style-type: none"> • Incomplete indicator reference manual • The indicator reference manual is not capturing all the indicators in NDP and HSSP • Some indicators are not defined clearly in the dhis2 e.g. child malnutrition • Indicators related to health education are not captured in the manual
Data sources	<ul style="list-style-type: none"> • Some programs report to other platforms outside dhis2 [parallel reporting] e.g. TB, nutrition • Majority of the primary health units do not provide regular reports • Data from campaigns is not reported in dhis2 e.g. measles, polio • Data collected at the community level is not streamlined into dhis2 • Incompleteness of data from emergency sections in the hospitals • Data quality validation rules and criteria not fully functional in the dhis2
Data Management	<ul style="list-style-type: none"> • Poor commitment and collaboration with HMIS staff from regional hospital senior management team • Lack of data management guidelines • Insufficient support supervision • Lack of or insufficient HMIS training at the health facilities • Lack of data quality assessment guidelines • Lack of routine data quality assessment • Lack of written feedback on data quality at the HFs, regional and central levels
Information product, dissemination and use	<ul style="list-style-type: none"> • Lack or insufficient data use at some levels • Poor dissemination of data to the next levels • Delay in submission of data to the next level • Lack of regular quarterly and annual HMIS reports

Key actions

Based on the challenges and gaps identified during the assessment and review on the HMIS, the following items that had been highlighted as main issues that require to be addressed to improve the health information system performance. In summary, the key challenges and gaps are grouped as follows:

- I. Challenges on HMIS core documents**
- II. Challenges on data quality and use**
- III. Challenges on capacity and Human resources**
- IV. Challenges on HMIS Tools**

Area	Key challenges/gaps	Proposed actions
HMIS core documents	<ul style="list-style-type: none"> National indicator manual is in draft The manual however, does not capture all the indicators required to monitor the service progression and targets HMIS policy and SOP do not exist There's no law or regulation supporting health statistics production e.g. health statistics law 	<ul style="list-style-type: none"> Hold consultation workshop to review and finalize the manual for indicators Develop HMIS development strategy and other key documents e.g. SOP, data dissemination guideline Develop necessary laws and regulations supporting specific areas requiring legislation such as: civil registration, private sector data, data privacy etc.
Data quality and use	<ul style="list-style-type: none"> Data quality assurance guidelines/tools do not exist Irregular data quality assurance visits Lack of written feedback for data quality issues to and from HFs, regional and central levels Poor data dissemination practices and use at all levels Data quality validation rules and criteria not fully functional in the dhis2 	<ul style="list-style-type: none"> Develop standardized guidelines and tools for routine data quality assurance Conduct regular data quality assurance visits Establish standardized format and mechanism to implement formal and written feedback
Capacity and Human resources	<ul style="list-style-type: none"> High turnover of trained staff in the hospital wards [regional hospitals] who often are not the designated HMIS officers. Shortage of trained staff on HMIS at the health facilities [Only HF team leader or ward in-charge has the capacity] Limited financial support for the HMIS teams particularly at district and hospital levels 	<ul style="list-style-type: none"> Train and build capacity of more than one staff in the health facilities to mitigate turnover trained staffs at health facilities. Mobilize resources to support the HMIS offices particularly those in the districts
HMIS Tools and platform [dhis2]	<ul style="list-style-type: none"> Regular stock outs of HMIS tools Deficiency of HMIS OPD registers e.g. insufficient row and column size to capture all required information and no columns for capturing signs and symptoms of the patient. Registers and forms used by some of the programs are not aligned with the dhis2 format e.g. TB & nutrition registers and summary forms Some important features in dhis2 are underutilized e.g. data quality validation, GIS, tracker captures Lack of electronic data entry at the health facilities [dhis2] 	<ul style="list-style-type: none"> Ensure enough HMIS tools e.g. registers and summary forms are kept in all districts to counter stock outs Review the design and formats of the HMIS tools e.g. registers Unlock and operationalize the key features of the dhis2 Develop action plan for dhis2 roll out at facility level

High priority areas

After identifying the main challenges and gaps of the HMIS, the assessment has re-prioritized the key bottlenecks affecting the HMIS performance and recognized the following as high priority themes.

Area	Issues	What is required to be done	Implementation timeline	Level of priority
Core documents	Incomplete National HMIS indicator Reference Manual and SOP	Some work has already been done and there is draft version of the Indicator reference manual. To finalize the indicator reference manual, the following activities are necessary: a. Hiring of local consultant to support the Ministry in revising the manual b. Consultation workshop to carry out joint review of the manual c. Workshop for validation and dissemination of the indicator reference Manual	The tentative timeline for finalization of the HMIS indicator manual will be 2 months.	High priority
	Lack of HMIS development strategy	a. Hiring of local consultant to support the Ministry in the drafting for HMIS development strategy b. Consultation workshop to carry out joint review of the strategy c. Conduction of workshop for validation and dissemination of the strategy	the tentative timeline for developing the HMIS development strategy will be 3 months.	
Quality assurance	Lack of guidelines and tools for Routine Data Quality Assessment (RDQA) and irregular joint comprehensive data quality assessment visits	Development of RDQA tools and guidelines will require the following activities: a. Consultation workshop to draft RDQA guidelines and tools b. Workshop for validation and endorsement of RDQA guidelines and tools c. Implementation of quarterly joint RDQA visits to the health facilities d. RDQA discussion forum	The tentative timeline to develop RDQA guidelines and tools and implement joint RDQA visits and conduct establish strong feedback system is 3 years. plan.	High priority
Coordination and feedback	Lack of HMIS coordination and feedback at the regional and district level	a. Coordination and feedback quarterly meetings at regional level	The tentative timeline for HMIS coordination and feedback meetings will be 3 years	High priority
Human resource and Finance	Limited number of staffs trained for data at health centers and hospitals	a. HMIS trainings for new and existing HMIS staffs b. Special and continuous development HMIS trainings for regional and national staffs e.g. advanced data analysis, data use, analytical software, health informatics, statistics, demography, GIS and epidemiology	the timeline for HMIS trainings is based on the fact as long as the need to have the new or refresher training is there. This will be a continuous process	High priority
	Limited resources for district HMIS offices	a. Office support for district HMIS staff (computer, tables/chairs, internet) b. Incentives for district HMIS staff	<ul style="list-style-type: none"> HMIS office support is one-time activity except the internet connection Incentive support to the HMIS staffs is continuing activity as long as the person is there and working as well 	High priority
Information product and use	Lack of regular quarterly and annual HMIS reports Poor data dissemination practices and use at all levels	a. Production of HMIS annual or bi-annual reports b. Development of data dissemination framework and data use forum c. Monthly HMIS news letters d. Production of weekly surveillance report e. Production of HSSP progress report	Production of HMIS annual reports and data dissemination forums will be implemented every year. Once it is established well, this will be a continuous activity	High priority
Tools and platform	Lack of electronic data entry at the health facilities [dhis2]	a. Commencement of digitalization of HMIS tools at the facility	The digitalization process will be conducted in phases and will take around 4 years.	High priority

Conclusion

The outcome of this HMIS assessment report will act as baseline document that highlights the overall gaps, challenges and priorities of the HMIS. The report underscores the Ministry's vision to revamp the information for health and aspire the evidence based decisions. The identified priorities and proposed action plans in the report have been developed for showcasing some of the long and short term areas of the HMIS that requires both financial and technical support for their implementations. All supporting partners and donors are encouraged to contribute in any kind of support to the aforementioned priorities regardless of their previous history of support to the HMIS.









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