FEDERAL GOVERNMENT OF SOMALIA

MINISTRY OF HEALTH AND HUMAN SERVICES

HEALTH INFORMATION SYSTEM STATISTICAL PLAN

(2018-2022)

March 2018

FOREWORD

The Ministry of Health and Human Service strongly believes in the importance of using statistics as evidence to support policy, planning, decision-making, monitoring, evaluation and reporting on development progress. For statistics to be useful for these purposes, they should be comprehensive, have quality and integrity, and be produced in a timely manner and made available to users in a form that makes them easy to understand and use. However, because of years of conflict in the country, much of the statistical infrastructure broke down, statistical systems are weak, there is lack of suitably qualified staff, institutional memory is destroyed, etc. As a result, there are huge data gaps on development indicators and the quality of existing data is questionable. It is, therefore, critical that recovery of the statistical systems in the country is fast tracked so that official statistics can support national recovery and reconstruction programmes. It is for this reason that this Health Information System Statistical Plan has been designed to improve the availability and quality of statistics in the health sector.

This plan has been prepared as part of the process of designing the overall National Strategy for the Development of Statistics (NSDS) which has been designed to improve the National Statistical System to be able to provide good quality statistics. The overall objective of this plan is to provide a strategic framework for improving and strengthening official statistics and their use for policy formulation, planning and decision making. Not only does it identify key issues and challenges constraining production of harmonized, coordinated and quality statistics but also it presents strategic goals, objectives and initiatives for turning around the statistical system in the health sector.

This plan was prepared by the staff of the Health Management Information System Unit in the Ministry of Health. The process was led by the head of the unit and was supported by the Directorate of National Statistics in the Federal Government with financial and technical support from the World Bank and PARIS21 consortium. I would like to thank the staff of my ministry who worked hard to produce this plan and all stakeholders who participated in the process of designing the plan. I would like also to thank the Directorate of National Statistics for guidance and the World Bank and PARIS21 consortium for their financial and technical support in the design of this plan.

My ministry takes this as a blueprint for developing statistics in the health sector. The Ministry of Health will therefore do everything possible to ensure that this plan is effectively implemented. I therefore wish to appeal to all staff of the ministry and stakeholders including development partners to support implementation of this plan.

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ACKNOWLEDGEMENT

The Ministry of Health and Human Service wishes to acknowledge with thanks all individuals and those institutions which participated in the design of this Sector Statistics Plan. We would like to thank the Directorate of Statistics for continued support and guidance and especially in the design of this plan. In this respect, we want to single out for mention Ms. Naima Osman, the NSDS Coordinator, for ably coordinating the process of designing Sector Statistics Plans country-wide.

We want to express our appreciation to the World Bank which provided most of the technical and financial assistance for the design of the NSDS as well as PARIS21 which supported the costing workshops. Prof. Ben Kiregyera, the international consultant and Mr. Ahmed Elmi Muhumad, the national consultant provided invaluable guidance, support and insights into the design of this plan. We are grateful to them.

Mr Ibrahim Mohamed Nor and Mr.Hassan Sheikh Ahmed Mohamed led the process of designing this plan. Not only did they engage staff of the ministry but they also worked with other sectors on the design of the National Strategy for the Development of Statistics. We encourage them to work even harder on the implementation of this plan.

Dr. Abdullahi Hashi
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ACRONYMS

C4D	Communication for Development
CSR	Communicable Surveillance response
DQA	Data Quality Assurance
DHIS	district health information system
HF	Health facility
HIS	Health Information System
HISSP	Health Information System Statistical Plan
HMIS	Health Management Information System
HMN	Health Metrics Network
HSSP	Health Sector Strategic Plan
ICT	Information communication technology
IDSR	integrated disease surveillance and response
IP	Implementing Partners
NDPs	National Development Plan
NGO	Non-Governmental Organization
NHP	Somali National Health Policy
NID	National Immunization day
NSDS	National Strategy Development for Statistics
SDGs	Sustainable Development Goals
SIA	Supplementary Immunization Activity
SOP	Standard Operating Procedures
SWOT	Strengths, Weakness, Opportunities and Threats
TOR	Terms of reference

EXECUTIVE SUMMARY

Like all sectors in Somalia, the health sector is facing challenges arising from the erosion of national infrastructure, capacities and systems during years of conflict and civil war. The challenges include high levels of poverty, lack of security, lack of access to health services, poor nutritional status of the population, the low status of women and high rates of female genital mutilation, high fertility rates, low immunization rates, lack of access to portable water and safe sanitation, poor health behaviours and - increasingly - unhealthy life styles. However, the Somali people are resilient and have started to rebuild the country including the health sector. Accordingly, a Health Sector Strategic Plan has been designed to guide the building of the Somali government's capacity to improve access to health services for the people of Somalia. The plan establishes a realistic and clear framework for allocation of national resources as well as a means to improve the allocation and effectiveness of external support for the sector. The development of plan considered a wide range of policies, disease outbreaks, the changing climatic conditions and issues related to international health regulations. It also considers the international treaties and conventions to which Somalia is signatory especially (i) the Sustainable Development Goals (SDGs), and (ii) the International Health Partnerships and related Initiatives (IHP+) which seek to achieve better health results and provide a framework for increased aid effectiveness.

The Ministry of Health is the public institution responsible for the health care of the nation. The Department of Policy and Planning in the Ministry of Health has a dedicated Health Management Information System (HMIS) Section which was established 2012. However due to limited resources, there are challenges in data collection from different health facilities in different regions, district and villages in the country. The HMIS receives support from Global Fund through UNICEF while the Government of Somalia contributes salaries for central staff. Demand for health information is currently high and is influenced by the HSSP which emphasizes decentralization. For this reason, health systems are managed more closely at the level of health service delivery by the personnel in their respective locations. This shift in functions between the central and peripheral/district levels generates new information needs and calls for an in-depth restructuring of information systems, with standard tools for data collection, processing, analysis, and dissemination requirements. It is for this reason that this statistical plan for HMIS was designed.

Two forces have provided the necessary push to strengthen the HMIS. One, the Health Metrics Network (HMN) initiative under the World Health Organization of the United Nations (WHO) has been promoting in developing countries increasing the availability, accessibility, quality, value and use of timely and accurate health information for decision making at country and global levels. The HMN has catalyzed joint funding and development of core country health information system. Two, the decision by the Federal Government to design a holistic and comprehensive framework for developing and improving the entire Somalia National Statistical System (NSS). The NSDS is a framework that, among other things, addresses data challenges including: effective assessment and prioritization of data

needs at every level, integration of statistics into policy and decision-making, resource mobilization for statistics and their effective utilization, introduction of change and its management and capacity building across the entire National Statistical System. The design of the NSDS was to use a sectoral approach and the health sector was selected to be among the first sectors to participate in the NSDS.

Under the NSDS and with support from the Federal Directorate for National Statistics, the World Bank and PARIS21, each sector participating in the NSDS was required to assess the state of its sector statistics and then design a Sector Statistics Plan to support improvements. The plan to be designed through a consultative and participatory process spearheaded by the relevant statistics unit in the sector. Thus this plan was designed by the HMIS section in the Department of Policy and Planning in the Ministry of Health. Its design was based on an assessment of the state of statistics in the health sector. The assessment was undertaken in the middle of 2017 and it helped to identify stakeholders in the HMIS and their data needs; gaps in data, infrastructure and statistical capacity; key issues and priorities for statistical development. The main challenges facing the HMIS were identified as: inadequate financial and human resources for implementing HMIS plan at all levels; weak capacity for data analysis, reporting, dissemination and use; incomplete reporting at all levels; weak hospital statistics; lack of private sector and community data; lack of standards and guidelines for data collection, analysis and reporting; weak feedback mechanisms at all levels; absence of mechanisms for data verification and quality assurance; weak collaboration between HIS/HMIS manager and programme managers for planning and review of health plans and programme; catchment area population not well defined; quality of the data collected and reported to the HMIS is weak; no systematic and comprehensive national household-level health surveys conducted since 2006 covering all the regions of the country to generate comparative and representative values for core health indicators; health information system of vertical programme and surveillance systems not integrated with HMIS; and system for vital statistics and civil registration is not in place.

Based on the said assessment, a strategic framework was formulated comprising the strategic foundations (vision, mission and core values) and strategic directions, viz. strategic goals, objectives and initiatives for effective building the HMIS. The goals to achieve the vision for the HMIS were identified as:

Goal 1: Improved awareness and use of health statistics
Goal 2: Improve coordination of the HMIS
Goal 3: Enhance the quality and usability of HMIS at all levels

Also identified and stated are risks and possible mitigation measures as well as success factors for the plan. Implementation, monitoring and evaluation arrangements are presented. Plan implementation will mainly comprise: creating awareness about the plan; undertaking statistical advocacy; creation of HMIS Steering Statistics Committee and functional Technical Working Groups; strengthening the HMIS Section; mobilization of resources – human, financial and technical; recruitment, training and motivation of statistical staff; building necessary infrastructure for HMIS; building necessary partnerships and collaboration among

key stakeholders e.g. among federal government ministries, departments and agencies; State governments; the private sector; civil society sector; and development partners.

Plan implementation will be closely monitored and evaluated. Quarterly and annual progress reports will be prepared. There will also be a mid-term review of progress and at the end of the plan period, an evaluation will be undertaken. Evaluations will be undertaken by independent bodies. Plan implementation over a five-year period is expected to cost US$ 1,121,305. The estimate is based on costing of an action plan that outlines the initiatives (specific actions) to be taken, when and by whom in order to achieve plan objectives within a budgetary and resource framework. It also provides milestones/ targets to be met. The biggest cost items in the budget is establishment of district health management information offices and introduction of DHIS2. It is expected that funding for the implementation of the plan will come from both the Federal Government and development partners.

LIST OF MAIN CONCEPTS

The following main concepts are used in this document:

Concept	Narrative
Sector	The term "sectors" is used here to describe "a vertical division of governmental focus that relates to a given subject area or public need - usually corresponding to line ministries, government departments or agencies – with separate and well-defined areas of concern, mandate, and budget". These sectors will be Government entities, namely ministries, departments or agencies.
National Strategy for Development of Statistics (NSDS)	This is a second generation statistical plan and a framework to strengthen the entire National Statistical System. It is a medium to long-term vision for statistical capacity building to respond to key user needs. Furthermore it is a robust, comprehensive and coherent framework to address data limitations, prioritize the use of resources, and integrate statistics within national policy processes and effect change.
Sector Statistics Plan	This is a framework to provide strategic directions and appropriate mechanisms for guiding and accelerating the development of statistics and their use especially for policy and decision-making in the sector.
Stakeholders	Stakeholders are individuals, social groups, organizations or communities which are affected by the impact of an activity, or which can influence an activity.
Data quality	Refers to "fit for purpose" from the point of view of the user and covers a number of dimensions including data relevance, accuracy, completeness, consistency and timeliness.
National Statistical System (NSS)	This comprises a legal framework, institutional and organizational arrangements for collection, management and dissemination of official statistics in the country. Its main components are data users, data producers, data suppliers, and research and training institutions.
Statistical Advocacy	This concept is about taking pro-active measures to, among other things, create greater awareness about the role and importance of statistics to society and promote wide use of statistics especially for public policy, planning and decision-making.

Statistical coordination	This is an arrangement to achieve synergy, better utilize resources for statistics and produce higher quality data as well as avoid duplication of effort and production of conflicting data. It is done at institutional and technical levels.

CHAPTER ONE: INTRODUCTION

1. About the country

Somalia is located in the eastern part of Africa, also known as the horn of Africa. It is bordered by Kenya in the Southwest, Ethiopia in the West, Djibouti in the Northwest, Gulf of Aden to the North, and the Indian Ocean to the east and to the south. Somalia covers an estimated surface area of 637,657 sq. km (246,201 sq. mi) and terrain consisting of plateaus, plains and highlands. For the past twenty-five plus years, Somalia has been characterized as a country of pervasive armed conflict and natural disaster resulting in continued humanitarian crises, chronic insecurity and without functioning government institutions.

Somali population has increased significantly since last census in 1975. Most recent Population Estimation Survey for Somalia (PESS) estimated a population of 12.3 million in Somalia of which 51% are male and 49% female (UNFPA, 2014). Nearly 50% of the total female population are within the childbearing age of 15-49 with high fertility rate of 6.2 births per woman. Forty percent (40%) of the total population are literate of which 36% are female compared to 44% of their male counterpart. Nearly 50% of the population of working age (15 – 64) are economically inactive and only 40% of working age who are economically active are employed. Furthermore, the nomadic population are showing the highest labour force participation of 68% with 11% unemployment. Because of the conflict and drought in the country, it is estimated that 80% and 84% of the population live in urban and nomadic areas respectively.

Somalia's development indicators are among the lowest in the world. According to Population Estimation Survey for Somalia (PESS), 75% of the Somalia population are under the age of thirty (UNFPA, 2014). High levels of insecurity and lack of employment opportunities left many young people vulnerable to either join militia groups such as Al-shabab undermining stabilisation efforts or leave the country. As indicated in the Somalia Human Development Report 2012, 60% of youth have the intention to leave the country for better lives (UNDP, 2012). The unemployment rate for youth aged 14-29 is 67%; age dependency for young people is 90% male and 85% female, and 4% male and 3% female for elders.

Since independence in 1960, Somalia has undergone a number of armed conflicts including the 1964 war with Ethiopia over Ogaden region of eastern part of Ethiopia and again in 1977, and the civil war that started in the early 80s resulting the collapse of the central government in 1991. Somalia has been without a functioning government for more than twenty-five years and as result, conflict and insecurity has intensified. This recurrent conflict and insecurity coupled with severe drought and lack of strong central government resulted in the worst famine and humanitarian crisis.

It is, however, worth noting that Somalia has shown resilience and is now recovering. Internationally recognized Federal Government of Somalia (FGS) replaced transitional Federal Government in 2012. Northwest (Somaliland) and Northeast (Puntland) regions of Somalia have been peaceful, and the security situation in South and Central regions is now improving with pockets of instability whereby the government forces and allies are fighting against Alshabab. Northwest region of Somalia (Somaliland) declared independence in 1991 but has not been recognized internationally. It has special arrangement with the Federal Government and people from the region are represented in the Federal Government. More Federal Member States have recently been formed to complete the state formation process bringing the total to five. Among them are Jubaland, Southwest, Galmudug and Hirshabeele as well as Banadir Regional Administration. Government institutions are in transition to full recovery and the implementation of the first Somali National Development Plan (NDP) in more than thirty years has begun with enthusiasm. Somalia has also committed to global and continental agenda adapting the Sustainable Development Goals and 2063 Agenda for Africa.

Furthermore, the Federal Government completed its first electoral process in February 2017 and the new Parliament consisting of 275 lower house and 54 upper house members. There is an elected President and a Council of Ministers which report to him through Prime Minister selected by the President. Parliament serves as the legislative branch while the Executive Branch of the government comprises the President as the Head of State and a Prime Minister chosen by the President as the Head of Government with his Council of Ministers.

Somalia has developed her first National Development Plan (2017 – 2019) in more than 40 years and is preparing a National Monitoring and Evaluation framework. It has also committed to global and continental agendas such as 2030 Sustainable Development Goals (SDGs) and 2063 Agenda for Africa.

1.1 Healthcare in Somalia

1.1.1 About health sector

According to the National Development Plan (2017-2019), a new environment is emerging in the Somali health sector. There are recent signs of a slow but persistent improvement in health outcomes. According to WHO estimates, maternal mortality ratio was around 732 per 100,000 live births, whereas child mortality rate was 137 per 1000 live births in 2015.

The population is estimated to be 13 million in 2016 with 42.5% living in urban areas and 22.8% living in rural areas. Migrants and mobile populations such as pastoralists constitute one-fourth of the total Somali population and there are 1.1 million internally displaced people living mainly in the outskirts of urban towns which constitutes 8.6% of the total population. The key high-risk groups are 2.4 million children under the age of 5 years and more than 3 million women of child bearing age. At one time there were about 593,000 pregnant women in the country. Life expectancy was 53 and 56 years respectively for male and females in 2014.

Communicable diseases, reproductive health and under-nutrition conditions are the major contributors to morbidity and mortality. One in 18 women has a lifetime risk of death during pregnancy. The country has one of the highest total fertility rates in the world at 6.7, with unmet need for birth spacing at 26%. 98% of women experience female genital mutilation/cutting, leading to serious obstetrical and gynaecological complications. Non-communicable diseases and mental disorders are also on the rise. Pneumonia and diarrhoea are among the major killer diseases in children under-five. Polio transmission has been interrupted in 2015, but routine immunization coverage remains very low as only 46% of children received 3 doses of pentavalent vaccine and 43% measles in 2015. Malaria is endemic in some parts of the country and there were more than 610,000 malaria cases in 2014. Tuberculosis is highly prevalent with 30,000 new cases every year, of which fewer than half are detected. The HIV epidemic is growing with a prevalence rate of about 1%, and higher prevalence among high-risk groups.

There are about 106 hospitals/ referral health centers, 391 MCH/Health centers and 620 health posts. The total number of available human resources for health was 9,856 in 2014 including 621 physicians, 2,653 registered nurses, 636 registered midwives, and 198 ‗Marwo Caafimaad (FHWs). WHO‘s minimum threshold for health worker-to-population ratio indicates that around 30, 000 skilled health workers are required in the country. There are 47 medical, nursing and midwifery training programmes which need to be strengthened and regulated while ensuring quality standards.

Alongside the public health care system, a private health care system exists which is growing very fast but remains unregulated. The private health care system includes general practitioners and specialists based in private clinics or hospitals and a vast network of pharmacies whereas there are only few certified pharmacists in the country. NGOs are the main service providers mainly contracted out through humanitarian or development health programmes and play a crucial role in the service provision.

Per capita public (including donor financing) expenditure on health is about US$ 10–12 per person per year, which is very low and increases the risk of financial burden especially on marginalized populations (reference JRF Mission Report 2015).

The Ministry of Health is the public institution responsible for the health care of the nation.

1.2.2 Health sector development framework

The Ministry of Health has developed a Health Sector Strategic Plan (HSSP) for three main purposes[1]:

[1] Health Sector Strategic Plan (2013-2016), Directorate of Health, Ministry of Health

- It provides a strategic framework to guide the development of annual work plans and budgets that will detail the specific activities and funds that are needed to build a modern health sector and achieve the mission of the Directorate of Health. Annual work plans and budgets will result in more focussed efforts by all partners and lead to better progress in the meeting the health needs of the people.

- It provides a clear statement to funding and implementation partners of the government's strategy and priorities for investment in the health sector so that the human and financial resources needed to implement the plan can be harmonised and external support, from traditional and non-traditional donors and from the UN, Somali diaspora and NGOs, can be made more effective and efficient. The plan also includes the design of clearer and more efficient donor-government responsibilities for implementation, management and reporting so that coordination can improve and the high transaction costs associated with South Central Somalia's receipt of international development cooperation can be reduced.

- New arrangements for the implementation of the HSSP provide clearer divisions of responsibility for implementation, management and reporting of the investment in, and the results of, the Plan. These responsibilities are currently unclear.

The development of the Health Sector Strategic Plan considered a wide range of policies, disease outbreaks, the changing climatic conditions and issues related to international health regulations. It also considers the international treaties and conventions to which Somalia is signatory especially (i) the Sustainable Development Goals (SDGs), and (ii) the International Health Partnerships and related Initiatives (IHP+) which seek to achieve better health results and provide a framework for increased aid effectiveness. The aim of reviewing policies and plans during the development of the HSSP was to harmonize the strategic plan with the other existing sector and inter sectorial documents.

A lot of health information are required to monitor and evaluate implementation of the HSSP and associated programmes and projects as can be seen below.

1.2 Rationale for Health Information System (HIS)

The Department of Policy and Planning in the Ministry of Health has a dedicated Health Management Information System Section which was established 2012. However due to limited resources, there are challenges in data collection from different health facilities in different regions, district and villages in the country. Availability of resources will allow the undertaking of activities and fulfillment of its mandate of managing the health information system. HMIS receives support from Global Fund through UNICEF while the Government of Somalia contributes salaries for central staff.

The Ministry of Health through National Health Policy places emphasis on a well performing Health Information System (HIS). The Government of Somalia is desirous to use a new approach for managing the system as a program that will promote:

- effectiveness and efficiency of the system

- production of quality and timely data for use by different users
- overall strengthening of national HIS and data processes
- good working relationship with different data users and other stakeholders

Demand for health information is currently high and is influenced by the HSSP which emphasizes decentralization. For this reason, health systems are managed more closely at the level of health service delivery by the personnel in their respective locations. This shift in functions between the central and peripheral/district levels generates new information needs and calls for an in-depth restructuring of information systems, with standard tools for data collection, processing, analysis, and dissemination requirements.

It is for this reason that this plan was designed.This was done as part of the process of designing the overall Somali National Strategy for the Development of Statistics (NSDS), which the Federal Government had agreed needed to be designed as a holistic and comprehensive framework for developing and improving the entire Somali National Statistical System (NSS). The NSDS is a framework that, among other things, addresses data challenges including: effective assessment and prioritization of data needs at every level, integration of statistics into policy and decision-making, resource mobilization for statistics and their effective utilization, introduction of change and its management and capacity building across the entire National Statistical System. The World Bank provided funding to the Federal Government to support the design of the NSDS.

1.3 Role of statistics in sector development

Recognition of the weaknesses of health information systems is not new. However, currently several forces coincide to push for strengthened health information systems at country and global levels. This push is guided by the Health Metrics Network (HMN), an initiative under the World Health Organization of the United Nations (WHO).

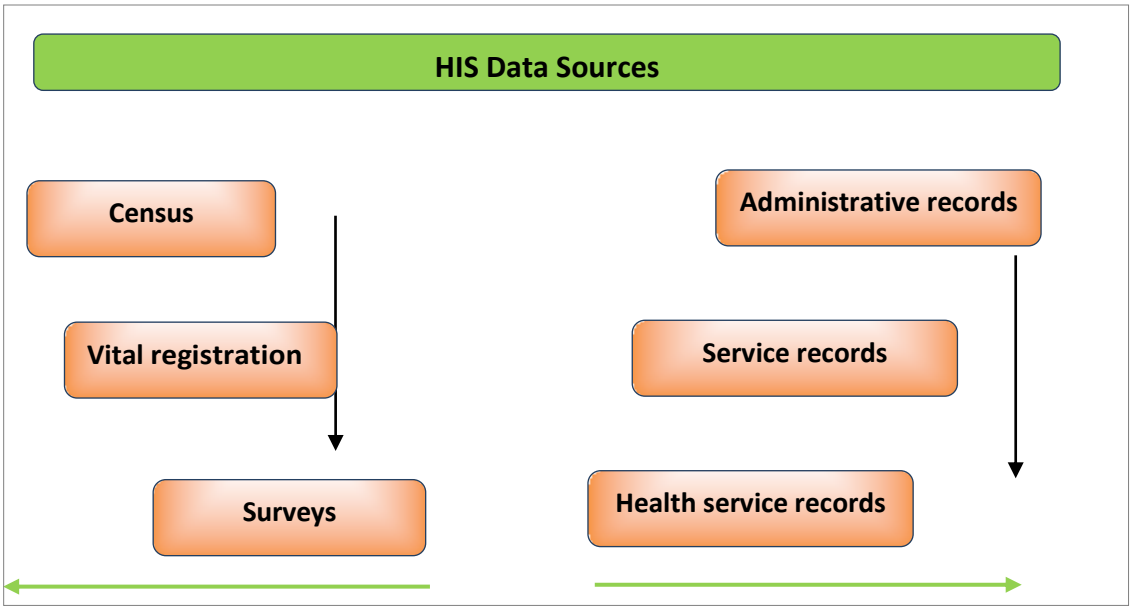
The general goal for HMN is to increase the availability, accessibility, quality, value and use of timely and accurate health information for decision making at country and global levels by catalyzing the joint funding and development of core country HIS to achieve the following objectives:

- **Create a harmonized framework for health information system development** (the HMN framework) which will work with countries to define essential health information platform designs, key health information standards, data and analytic capacities, and guidelines for information use that drive country-level HIS development and local/regional/global access and comparability.
- **Strengthen country health information systems** in developing countries by assisting them to apply the HMN framework at country level, in conjunction with technical and financial support.
- **Improve access, quality, value and use of health information** through development of policies and offering incentives for enhanced dissemination and use of information

by local, regional and global constituencies. Since the Ministry of Health has decided to adopt HMN framework in strengthening HIS any support would follow this framework. This would influence areas indicated in the following figure:

There are two pillars of health data: those that generate data relative to populations as a whole, and those that generate data about the operations of the health services. Population-based health information sources include the census, vital events monitoring (civil registration, as well as sample or sentinel surveillance of births, deaths and causes of deaths), and population-based (usually household) surveys and surveillance. This includes vector and environmental quality surveys.

Figure 1: HIS data sources



Health services data sources (known as HMIS) on the other hand generate data as an outcome of health-related administrative and operational activities. There are a wide variety of health services based data: facility-based data on morbidity and mortality among those using services; types of services delivered, drugs and commodities provided; information on the availability and quality of services; financial and management (e.g. human resource, logistics) information. Administrative records generate data on overall functioning of the health system such as the availability of human resources, infrastructure and commodities as well as financial flows.

1.4 Structure of the national HIS

The following is the structure of the national HIS based on the HMN framework. The framework identifies the following six components and standards of Health Information

System.

1.4.1 HIS Resources

These include the legislative, regulatory and planning frameworks required for a fully functioning health information system, and the resources that are required for such a system to be functional. Such resources include personnel, financing, logistical support, information and communications technology (ICT) and coordinating mechanisms within and between the six building blocks for health, namely: Governance and Leadership, Human Resource for Health, Service delivery, Medical Products and Technology, Health Finance and Health Information System.

The Ministry has a dedicated Health Management Information System Unit within the Department of Policy and Planning. The mandate of the Unit covers among others the following:

- collection of relevant and reliable information on health service delivery and health status, utilization of health services, and distribution of health resources.
- timely production of routine and surveillance data and dissemination of health information reports to stakeholders.
- promotion of collaboration among producers of health information (for production and use).
- training of regional, district and facility staff dealing with health information to enhance use of data for management, monitoring, evaluation, planning, and research.

1.4.2 Indicators

A core set of indicators and related targets is the basis for a health information system plan and strategy. Indicators need to encompass determinants of health; health system inputs, outputs and outcomes; and health status. The national minimum set of core HMIS indicators is a set of 72 indicators endorsed by the Health Sector Committee in 2015. The indicators are grouped into 11 broad categories as shown in Table 2 below.

Table 2: National HMIS indicators

Grouping	Number of indicators and brief description	
General	10	Catchment population, human resources for Health and service workload
Maternal health	12	Covers ANC, deliveries, PNC, TT, and maternal deaths
Family planning	2	Contraceptive acceptance and prevalence rate
Child health	11	Birth outcomes, EPI, and childhood diseases
Nutrition	12	Child nutrition, micronutrient supplementation, anemia
Malaria	5	Malaria diagnosis and treatment, and IPTp
HIV/STI	11	HIV/STI screening and treatment

Tuberculosis	2	Case detection and treatment outcomes
Supplies	1	Stock outs of essential commodities
C4D	2	Health education sessions and coverage
HMIS	4	Timeliness, completeness, coverage and DQA

The following indicators have been prioritized for monitoring the national health status. Reporting on these indicators occurs on regular basis.

1. Maternal mortality ratio
2. Under five (<5) mortality rate
3. Infant mortality rate

4. Neonatal mortality rate
5. Number of children who are stunted
6. ANC, PNC coverage
7 .EPI coverage of Penta 1 and Penta 3
8. Skilled birth attendance (deliveries).
9. TB case detection rate

1.4.3 Data sources

Data sources can be divided into two main categories; (1) population-based data (censuses, civil registration and population surveys) and (2) institution-based data (individual records, service records and resource records). There are other data-collection approaches and sources that do not fit into either of the above main categories but nevertheless provide important information that may not be available elsewhere. These include occasional health surveys, research, and information produced by community based organizations.

The main source of health data in our country is the health facility service statistics (institution data) which are collected and reported using standard national HMIS registers and forms respectively. There is need to build capacity and advocate for HIS as the official reporting system to improve coordination and reduce data discrepancies at national and sub-national levels. There is need also to strengthen other data sources to complement the service statistics data, and to overall build the capacity to process and analyze data from all sources.

1.4.4 Data management

In 2016, the national HMIS tools for data collection and reporting were revised and standardized. In addition, the health information management switched from a Microsoft Access database to District Health Information System (DHIS2), an online open source software. Regional HMIS officers started entering facility level data into DHIS2 in January 2017. The system performs some in-built data aggregation, analysis and visualizations, these are then available for planning and decision making by program managers and other stakeholders throughout the country. Currently, there are written standard operating

procedures (SOP) for data recording and reporting. However, there are no SOPs for data cleaning, analysis and presentation.

1.4.5 Information products

Data must be transformed into information that will become the basis for evidence and knowledge to shape health action. The routine HMIS data collected through regional officers is entered into computers and aggregated through DHIS2. Other data include weekly surveillance data and sometimes SIA, NID data, and periodic surveys conducted by health information management section for programme improvement and evaluation.

The main information products from these data are regular summary reports disseminated through stakeholders' feedback meetings, and the annual HMIS report. There is need to diversify the range of products to include infographics, pamphlets, and messages for social and mainstream mass media. Use of information on risk factors to advocate for behavior change by the public and vulnerable groups needs to be streamlined under the communication for development (C4D) strategy.

1.4.6 Data dissemination and use

The value of health information is enhanced by making it readily accessible to decision-makers and by providing incentives for, or otherwise facilitating, information use. This requires that the information be readily accessible by data users. Reports of the quarterly and annual regional and national data review and analysis meetings are shared with all stakeholders. Dissemination of the cleaned data is mostly through the Ministry website and electronic mailing list for stakeholders.

1.5 Role of health information system in sector development

1.5.1 Current data systems

Somalia health management information system is a hybrid, with a mix of integrated and stand-alone data systems. Conversely, the major communicable and non-communicable disease control programs as well as modifiable diseases, human resources for health (HRH), logistics management information system (LMIS), have separate vertical data systems. This is shown in table 3 below.

Table 3: Current Data Systems

System	Type of data generated
Integrated systems (routine)	Outpatients Inpatients Delivery ANC, PNC

	Child Health MCH/HC and Hospitals, Under-Five over five
Vertical systems	Nutrition Standalone OTP/TSFP etc. SIA, AFP Surveillance etc. Notifiable Diseases (CSR) HIV (ART) Tuberculosis Family Planning (part of the MCH/FP report)
Partial / no systems	CHMIS Mental health Leprosy, Leishmaniasis and Kala-azar Finances (NHA) Human Resources for Health Drug and Logistics Management information system Laboratory services (LIMS) Accidents

1.5.2 Health information assessment and DHIS2 roll-out

The Ministry with the help of the Global Fund/UNICEF has adopted the integrated DHIS2 software as the national reporting system for routine health data. The University of Oslo has worked closely on it with the local Ministry staff Core Development Team and UNICEF health and HMIS Specialists since September 2016. In addition, regional and central HMIS officers were trained in Kampala (November 2016) as Training of Trainers (TOTs) for the revised HMIS tools as well as DHIS2 customizations. This was to provide the necessary support to Ministry staff to sustain DHIS2 which has now been handed over to the Ministry for roll out to the entire country.

1.5.3 Key features and purpose of DHIS2

The following are the key features and purpose of DHIS2:

- Provide a comprehensive data management solution based on data warehousing principles and a modular structure which can easily be customized.
- Customization and local adaptation through the user interface. No programming required to start using DHIS2 in a new setting (country, region, district etc.).
- Provide data entry tools for different levels of service delivery.
- Provide different kinds of tools for data validation and data quality improvement.
- Provide easy to use - one-click reports with charts and tables for selected indicators or summary reports using the design of the data collection tools.
- Flexible and dynamic (on-the-fly) data analysis in the analytics modules (i.e. GIS, Pivot Tables, Data Visualizer, Event reports, etc.).

- User-specific dashboards for quick access to relevant monitoring and evaluation tools including indicator charts and favorite reports, maps and other key resources in the system.
- Easy to use user-interfaces for metadata management e.g. for adding/editing datasets or health facilities. No programming needed to set up the system in a new setting.
- Functionality to design and modify calculated indicator formulas.
- User management module for passwords, security, and fine-grained access.
- Messages can be sent to system users for feedback and notifications. Messages can also be delivered to email and SMS.
- Users can share and discuss their data in charts and reports using interpretations, enabling an active information-driven user community.
- Functionalities of export-import of data and metadata, supporting synchronization of offline installations as well as interoperability with other applications.
- Using the DHIS2 Web-API, allow for integration with external software and extension of the core platform using custom applications.
- Further modules can be developed and integrated as per user needs, either as part of the DHIS2 portal user interface or a more loosely-coupled external application interacting through the DHIS2 Web-API.

1.5.4 Need for health information system statistical plan

Fragmented, uncoordinated data systems, and duplicated investments not only take health workers' time away from patient care but often results into low quality data which is not suitable for decision making. This health information system statistical plan is aimed at improving the quality of available data, increasing data demand and use at all levels while at the same time reducing the reporting burden for health workers.

1.5.5 Development of the plan

This plan was designed as part of the process of developing the overall National Strategy Development for Statistics (NSDS).This process was initiated by the Directorate of National Statistics (DNS) under the Ministry of Planning, Federal Government of Somalia and was funded by the World Bank. The process of designing the NSDS started late 2016 with the recruitment of an international consultant and a national consultant to support the process. A roadmap for the process was approved at a Joint High-Level Statistics Forum held in Nairobi in January 2017 and this was followed by a stakeholders' workshop held in Mogadishu in April 2017. The workshop aimed at reviewing new demand for development data including for monitoring progress towards the National Development Plan and the international Sustainable Development Goals (SDGs); mapping out key stakeholders in NSS; reviewing development data supply chain including data sources, infrastructure and systems for data production and management; appreciating the NSDS concept and its expected impact on the NSS; appreciating the NSDS processes and approaches; and reviewing the NSDS roadmap.

The Sector Statistics Coordinators from these sectors undertook the process of assessing the state of statistics in their sectors in May 2017. Later in May, a two-week workshop was held in Nairobi, Kenya for Sector Statistics Coordinators to discuss the assessment made, get more exposure on the NSDS concept and processes, and to design Sector Statistics Plans. In November 2017, a preliminary costing workshop for SSPs was held in Mogadishu and in January 2018, a workshop to cost and finalize the SSPs was held in Nairobi.

The next chapter presents the assessment of the state of statistics in the health sector which was done to provide a basis for the design of this plan. The chapter also presents the main findings from the assessment.

CHAPTER 2: ASSESSMENT OF THE STATE OF STATISTICS IN HEALTH SECTOR

2.1 Why the assessment?

The need for a Health Information System Statistical Plan was informed by an in-depth assessment of the current health information system in the country. The assessment included users' perspective and a detailed and critical review of the ongoing and planned HIS improvement efforts in addition to the UNICEF initiated HMIS capacity assessment. Key results of these assessments are presented in the pivot table in Table 4. This process led to better understanding of the outputs and organizational management of HISSP. Further, during the development of HISSP there was a consultat ion meeting which discussed development process as well as timelines for entire process.

2.2 Stakeholder analysis

Stakeholder analysis was done to determine who stakeholders in the sector statistical system are and the data they demand. This is presented in the following table.

Table 1: Stakeholder analysis and data demand

Stakeholders	Reason for data demand
Federal Government of Somalia Ministry of Health	• Planning • Decision making • Resource mobilization and allocation • Development interventions • Accountability • Recording and reporting system and references • Capacity building of the staff • Coordination of development interventions
Education/ learning institutions	• Academic research • Capacity building for Government staff • Strengthening of system
Donors and NGOs	• Planning development interventions. • Inform donor/donor feedback and reporting • Monitoring and evaluation of projects/programs • Advocacy and lobbying work • Disease surveillance. • Resource allocation • Accountability
Beneficiaries/community	• Monitoring development programs

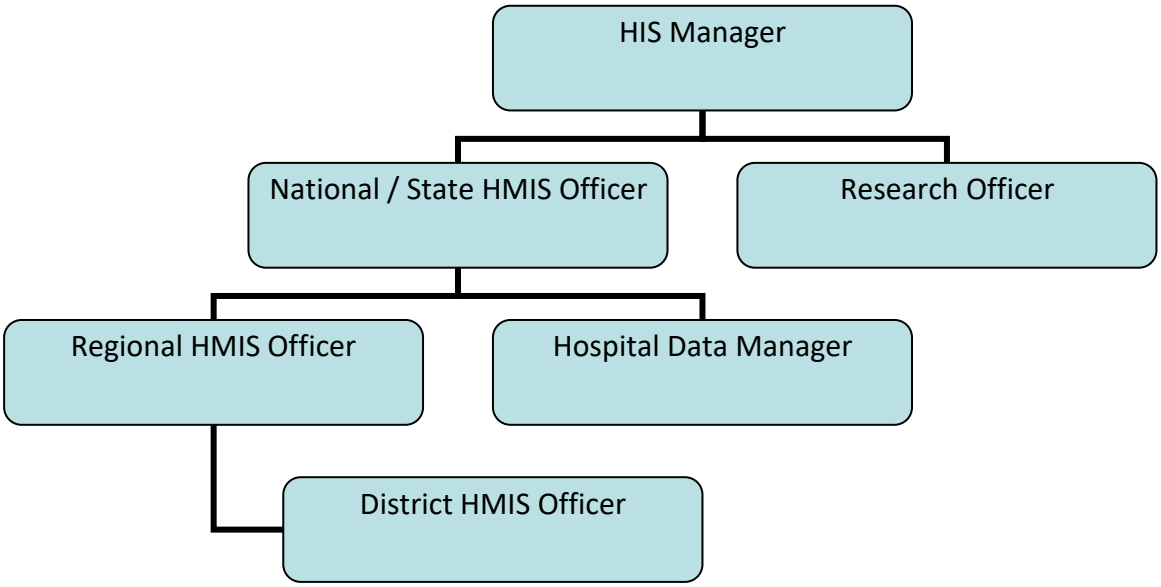
	• Planning processes (bottom-up planning) • Plan implementation e.g. community driven program • Hold government officials, including elected leaders accountable. • Advocacy from the grassroots upwards • Creation of administrative units, including villages and sub counties
Media	• Advocacy • Mobilization and community awareness • Improving on their profitability

2.3 State of statistics in the sector

2.3.1 Staffing Structure, Establishment and staff turnover

The HMIS section was established in August 2012 during Transitional Federal Government under the leadership of the Director General with two staff, and later it was placed under the leadership of National Health Management Information Manager and the number of staff was increased both at national and regional level (see Figure 2).

Figure 2: HIS Organogram:



Currently, there are five Central HMIS officers, ten regional HMIS officers and Nine Hospital data managers. However, there is shortage of staff specially district HMIS officers. Staff turnover is a challenge. The majority of staff trained by MOH on statistical skills soon leave government service to join the private sector where remuneration is better. Most of the staff hired in the HMIS section are degree holders. However, many of them require capacity building on data analysis and report writing skills.

2.3.2 Physical and statistical infrastructure

The ministry has benefited from Government and Global Fund resources for DHIS2 development since 2016. Somalia now has rolled out district health information system (DHIS2). The DHIS2 will improve the timeliness, quality, aggregation and visualization of routine and surveillance health data from health facilities for health sector development and provide opportunities to strengthen 'Strategic Information'. The national recording and reporting tools for the ministry have been revised in line with the national health indicators. The tools were distributed during the first quarter of 2017. In addition, a sector-wide approach is currently being implemented to align with National Development Plan (NDP) and Health Sector Strategic Plan for (2017-2021).

Though there are insufficient computers, lack of HMIS integration, shortage of HMIS tools, inadequate staff capacity for data products, analysis and report writing, the most promising opportunity for HIS development derives from the committed leadership through the Department of Policy and Planning and the Federal Ministry of Health.

2.3.3 Data analysis, dissemination and use

The analysis of HMIS occurs at every level where health services are provided (health facility, district, region and national level). Analysis is usually done on monthly, quarterly and annual basis. Results of the analysis are shared with program managers, heads of departments and stakeholders for planning and decision-making purposes. This is in additional to monthly data dissemination meetings which are held on the 25th day of the month as provided for in the health sector 2014 Standard Operating Procedures (SOP).

While the government is the primary consumer of health information, there are other important users of the information including UN agencies (UNICEF, UNFPA, WHO), international and national NGOs, and development partners supporting health service delivery in different locations in the country. Generally, all recipients use the HMIS data for resource allocation, decision making, planning and research for a healthier future of Somali people.

2.3.4 Major challenges

The following were identified as major challenges facing statistical development in the health sector:

- Inadequate financial and human resources for implementing HMIS plan at all levels.
- Weak capacity for data analysis, reporting, dissemination and use.
- Incomplete reporting at all levels.
- Weak hospital statistics.
- Lack of private sector and community data.
- Lack of standards and guidelines for data collection, analysis and reporting. However, data collection tools have been developed.
- Weak feedback mechanisms at all levels.

- Absence of mechanisms for data verification and quality assurance.
- Weak collaboration between HIS/HMIS manager and programme managers for planning and review of health plans and programme.
- Catchment area population not well defined
- The quality of the data collected and reported to the HMIS is weak.
- No systematic and comprehensive national household-level health surveys conducted since 2006 covering all the regions of the country to generate comparative and representative values for core health indicators.
- Health information system of vertical programme and surveillance systems not integrated with HMIS
- System for vital statistics and civil registration not in place.

2.3.5 SWOT Analysis

The Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis is important as it enables the identification of strengths and weaknesses (*which are internal organization*), opportunities and threats (*which are external organization*). The strategy is to build on strengths and aim at eliminating weaknesses, taking advantage of opportunities and avoiding threats.

The assessment of state of statistics in the health sector is summarized in the following table.

Table 4: SWOT analysis of the Health Information System

Strengths	Weaknesses
• National Statistics Act • Standard recording and reporting tools. • Established HMIS/CSR unit at central and regional levels except Middle Jubba region. • Skilled RHMIS Officers and IP Data managers • Online district health information system (DHS2) in place • Good coordination with Directorate of National Statistics • Established channels for information flow/feedback. • HMIS tools guidelines and training materials are in place	• Lack of human resources at district level • No dedicated budget for HMIS • Parallel reporting systems • Limited feedback from region to facility level • Evidence-based decision making is constrained • Insufficient coordination of HMIS partners • Delayed or no reporting by some health facilities • No data quality audits
Opportunities	**Threats**
• Government commitment at the highest level • Existence of NDP and HSSPII which require a lot of data	• Parallel and vertical data collection and reporting systems sometimes with conflicting data. • Lack of interest and support for

• Comprehensive set of health indicators • Increased demand for data by stakeholders and non-state actors • Research, M&E units at national level in place • Innovative technological advancement • Commitment from development partners supporting HIMS • International statistical standards, methodologies and classifications • Access to a pool of HMIS expertise in the region and internationally	population-based data (priority surveys). • Failure to follow national strategies and priorities for statistical requirements. • Some facilities not accessible due to insecurity • Loss of data due to inadequate backups • Inadequate infrastructure (offices, IT, etc.). • High staff turnover among critical HIS staff such as top MOH managers. • External stakeholders unwillingness to collaborate with Government agencies

The next chapter presents the strategic framework for turning around the Health Management Information System.

CHAPTER THREE: STRATEGIC FRAMEWORK

3.`1 Introduction

This chapter presents the strategic framework namely, the **strategic foundations** (vision, mission and core values) and the **strategic direction** (strategic goals, objectives and initiatives) as well as risks and mitigation measures, critical success factors and arrangements for plan implementation, monitoring and evaluation of this plan. The framework builds on the results of the assessment of the state of statistics in the health sector. The framework aims to build and turn the Health Information System into an effective support for policy, planning, decision-making, monitoring, evaluation and reporting at every level.

3.2 Strategic foundations

3.2.1 Vision

Somalia will have a robust and integrated health information system to support sector planning and performance measurement at all levels.

3.2.2 Mission

To provide timely, relevant, accurate and complete information in a sustainable and integrated manner through well trained and highly motivated staff with necessary resources and appropriate technology.

3.2.3 Core values

These values create a culture that the sector should build in order to achieve the intended vision. The values are:

User satisfaction	Consult with and be guided by users in order to produce demand-driven health statistics
Professionalism	In order to retain trust of users in health statistics, the HMIS Section will ensure that it follows strict ethical standards, professional considerations and internationally acceptable standards
Team work	Teamwork means that officials will try to cooperate, using their individual skills and providing constructive feedback, despite any personal conflict between individuals
Transparency	A lack of hidden agendas or conditions, accompanied by the availability of full information required for collaboration, cooperation, and collective decision-making
Accountability	The obligation of an individual to account for his/her activities, accept responsibility for them, and to disclose the results in a transparent manner. This also includes responsibility for money or other entrusted property
Efficiency	In order to promote efficiency, the HMIS Section will stress optimal use

	of the available resources, teamwork, networking, co-operation, competence, motivation, responsibility, innovation, resource awareness and adequacy
Quality	Committed to producing better quality products conforming to the key components of accuracy, timeliness, methodological soundness, interpretability, coherence and comparability, accessibility, completeness, reliability and relevance
Integrity and Independence:	Produce and disseminate statistics in an objective and independent manner
Gender responsiveness	Ensure production, management and use gender responsive education statistics

3.3 Strategic directions

3.3.1 Overall goal

The overall goal for this plan is to have an established and effective health information system based on sound, accurate, reliable, disaggregated and timely information for evidence based policy, planning, monitoring and evaluation.

3.3.2 Specific goals

To achieve this overall goal, the following strategic goals will be pursued.

Goal 1: Improved awareness and use of health statistics
Goal 2: Improve coordination of the HMIS
Goal 3: Enhance the quality and usability of HMIS at all levels

Goal 1: Improved awareness and use of health statistics

This goal is about identifying mechanisms that increase user engagement, user satisfaction, timely availability, and access of statistical information: aligning statistical outputs to user needs, developing and managing data dissemination portals. It will be accomplished through the following strategic objectives:

Strategic Objective 1: Develop a policy framework for the health sector with a functional health management information system

Initiatives

1. Undertake advocacy among policy makers, planners and implementers for use of health information in planning and decision making at all levels
2. Develop health information policy and disseminate it among all stakeholders

3. Develop a costed HIS statistical plan and share with stakeholders and donors for support and funding.
4. Build capacity for utilization of the health information for policy, decision making, planning, monitoring and evaluation.

Strategic Objective 2: To enhance and strengthen the institutional framework for a functional health management information system

Initiatives

1. Establish district health management information offices and introduce DHIS2 using a phased approach.
2. Develop/disseminate HMIS standards, tools, guidelines and standard operating procedures for the data collection, analysis, and reporting.
3. Identify relevant HMIS stakeholders, establish national HMIS Steering Committee and revitalize Regional and District HMIS Technical Working Groups.
4. Mobilize adequate resources for national health management information system.

Goal 2: Improve coordination of the HMIS

This goal is about achievement of better coordination of the HMIS. Coordination is critical to statistical development. It leads to achievement of mutual reinforcement, avoidance of duplication of efforts and non-optimal utilization of resources available for statistics, and improvement in data quality. This goal will be achieved through the following strategic objectives"

Strategic Objective 1: Enhance institutional and technical coordination of the HMIS

Initiatives:

1. Review and harmonize all data collection and reporting tools and systems
2. Integrate vertical data collection tools and reporting systems into the routine health management information system, including disaggregation by sex, location and other factors
3. Implement/update the comprehensive assessment of the vital registration system done in 2015 and develop a plan to strengthen the vital registration unit both technically and logistically.
4. Improve an integrated data warehouse (DHIS2) and Country archive system
5. Establish an integrated DHIS2 data visualized and portal system for dissemination of all available data and meta-data resources.

Strategic Objective 2: To enhance early warning and integrate disease and nutrition surveillance systems into national HMIS

Initiative

1. Strengthen integrated disease surveillance and response (IDSR) information system.

2. Strengthen nutrition surveillance system.
3. Develop and implement community-based IDSR and nutrition surveillance strategy.
4. Develop and pilot demographic surveillance sites (DSS) in Somalia in collaboration with academic and institutions that deal with population.
5. Integrate and strengthen EPI surveillance system active and passive

Goal 3: Enhance the quality and usability of HMIS at all levels

Data quality assurance involves development and/or adoption of standards and guidelines, quality assessments, statistical audits and certification, documentation, quality improvements, analytical and methodological research. This goal will be achieved through the following strategic objectives:

Strategic objective 1: Improve routine data collection and management

Initiatives

1. Build the capacity of staff at all levels to follow HMIS standards, guidelines and SOPs for data collection, analysis and report writing.
2. Produce quarterly and annual health statistics reports for both operational and strategic management.
3. Increase access and use of ICT technology for health management information system.
4. Strengthen logistics and management information systems, human resource information system, health infrastructure information system, income and expenditure tracking system, etc.
5. Develop/improve community health information system data collection tools at community level
6. Initiate data collection activities from private sector

Strategic objective 2: Improve health data management at district level

Initiatives:

1. To institutionalize periodic review of operational data sources, to identify duplication, unmet needs and correction while controlling proliferation of data collection systems**.**
2. To strength district based integrated disease surveillance and response (IDSR)
3. To participate in improving vital registration coverage and capacity building for the sub-system.
4. To improve data use at the point of collection

3.4 Risks and mitigation measures

The implementation of this strategic plan is exposed to the likelihood of unforeseen events that might affect its implementation. Working towards achievements the objectives of the plan, the Federal Ministry of Health needs an integrated organization-wide approach to

manage uncertainties. Table 5 below outlines some risks that the implementation of plan will face as well as mitigation measure.

Table 5: Risk and mitigation measures

Risk	Risk level	Mitigation measures
General risks		
Production of poor quality data	Medium	• Develop and implement data quality assessment mechanisms and tools • Provide in-service training on the HMIS tools
Inadequate support for this statistical plan	Low	• Widely disseminate the statistical plan among key stakeholders • Work towards achievement of "quick wins" to demonstrate usefulness of the plan
Unavailability of private sector data	High	• Provide standard HMIS tools to private sector • Train private sector providers on how to use the HMIS tools • Make reporting a mandatory requirement
Shortage of recording / reporting tools	Medium	Estimate consumption and print buffer stocks
Program risk		
Lack of awareness about statistical plan	Medium	• Involve all stakeholders in the launch of the plan • Undertake periodic awareness activities about the plan.
Limited use of available data	High	Provide training and support to senior managers and other key data users
Management not promoting data use	Medium	• Make use of information for decision making a performance criterion for managers • Routine circulation of user-friendly data products
Parallel / vertical reporting systems	High	• Integrate vertical program data into DHIS • Promote use DHIS as primary national HMIS data system • Request partners to support and report through DHIS

Region specific risk		
Lack of coordination	Low	Formation of regional HMIS Working Groups
Lack of commitment	Medium	Make data quality a performance criterion for RHMIS
Poor knowledge	High	Train all health workers and widely disseminate HMIS related SOPs
Data inaccessibility	Medium	Make data from the system readily available and accessible on line and through periodic reports

3.5 Success factors for the plan

The following were identified as key success factors for this plan:

- Political will to produce and use statistics in all development processes
- Alignment of policy and plan documents
- Strengthened HMIS Section of the ministry in terms of staffing (their capacity and retention)
- Improved staff morale through new government's initiative to pay staff salaries
- Streamlined standard recording and reporting tools for routine/weekly data collection to avoid duplication/vertical reporting improve data collection and management of data.
- Effective roll-out of District Health Information System (DHS2) allowing online reporting and instant access to data based on the national list of indicators and revised HMIS tools.
- Additional and sustained funding for HMIS activities and implementation of this plan.
- Development partners should work within the framework of this plan considering the consultative process of its development. Further, new funding for HMIS should not replace the current funding
- Good coordination with the Directorate of National Statistics and other stakeholders institutions

CHAPTER FOUR: IMPLEMENTATION, MONITORING AND EVALUATION FRAMEWORK

Effectiveness of any plan requires that prior arrangements are made for its implementation, monitoring and evaluation. This chapter presents these arrangements.

4.1 Implementation

4.1.1 Implementation arrangements

Implementation of the plan essentially involves translating strategic thought into action. It focuses on efficiency and requires motivation, leadership skills and coordination. Implementation of the plan will be led by the HMIS Section of the Ministry working in consultation with other line ministries and key stakeholders to coordinate and manage the implementation process. In addition, with support from the Directorate of National Statistics, Technical Working Groups will be established to handle technical aspects of different statistical areas.

Implementation will involve, among other things:

- Creating awareness about the plan
- Undertaking statistical advocacy
- Creation of functional Technical Working Groups
- Strengthening the HMIS Section
- Mobilization of resources – human, financial and technical
- Recruitment, training and motivation of statistical staff
- Building necessary infrastructure for HMIS
- Building necessary partnerships and collaboration among key stakeholders e.g. among federal government ministries, departments and agencies; State governments; the private sector; civil society sector; and development partners.

Implementation will be phased over a period of five years with each financial year constituting a phase. The prioritization and scheduling of activities shall be guided by funding requirements, availability of funds, the priority needs and the linkages of the strategic goals where synergy could be achieved. Successful implementation of the plan will require strengthening partnership and collaboration among key stakeholders.

4.1.2 Action plan

In order to effectively implement the plan, an action plan has been developed to serve as:

- a guide for action and represents the basis for allocating resources,
- a standard of performance for the plan and as the major instrument for monitoring progress towards achieving plan objectives, and
- a basis for establishing priorities for the HMIS and its various components.

The action plan which is presented in the annex outlines the initiatives (specific actions) to be taken, when and by whom in order to achieve plan objectives within a budgetary and resource framework. It also provides milestones/ targets to be met. The selection of initiatives for the action plan has included some quick wins – initiatives that can demonstrate easily and quickly the benefits of the HMIS

4.1.3 Sustainability

In many countries, programmes and projects which are mainly funded by development partners are not continued when support from partners ends. Consistent with the vision of this plan, it is important that provision is made for sustainability of activities that will be started using funding from development partners. Sustainability of statistical activities will be ensured by:

- building statistical capacity in terms of infrastructure, standards, methodologies, and skills development (provision of counterpart staff to work very closely with external experts for knowledge and skills transfer)
- advocating for increased funding from government treasury
- ensuring compliance with National Statistics Act, African Charter on Statistics[2], UN Guidelines on Technical Cooperation for Statistics (1999) and other international guidelines.

4.2 Monitoring

Monitoring the implementation of this plan shall provide essential feedback mechanisms within the adaptive management framework to keep the strategic plan responsive to changing conditions. Monitoring shall provide the public and partners with information on the progress and results of the strategic plan implementation. Monitoring of this strategic plan will include both simple observation of the results of implemented planned activities and more rigorous and systematic data collection, to provide a basis for periodic evaluation of the plan.

Therefore, monitoring implementation of the plan shall be a continuous process. Its objectives shall include the following:

- Determining whether implementation is focused on the fulfilment of the vision and mission of the strategic plan.

[2]African Charter for Statistics:https://www.afdb.org/fileadmin/uploads/afdb/Images/Photos/eng-charte.pdf

- Facilitating review of the implementation process.
- Facilitating feedback to management which is necessary for decision making
- Ensuring that targets are being accomplished within the expected timeframe and taking necessary measures for timely implementation.
- Ensuring that the activities are carried out as planned, and that any deviations are corrected promptly.
- Ensuring financial discipline as a foundation for proper and prudent use of resources is sustained.

Three types of monitoring reports will have produced.

- Quarterly progress report (done internally)
- Annual progress report (done internally)
- Mid-term review (to be undertaken by external body)

4.3 Evaluation

At the end of the plan period, an external evaluation of the performance of the plan shall be undertaken, focusing on whether the plan achieved its intended objectives.

More specifically, the evaluation shall address the following:

- Establishing whether adequate resources were mobilized and appropriately used.
- Assessing the reasons given with regards to success or failure in achieving the plan targets
- Understanding whether the plan implementation achieved desired impact in fulfilling the vision, mission and strategic objectives.

4.4 indicative budget and funding arrangement

4.4.1 Indicative budget

(a) Costing tool

PARIS21 has developed an innovative planning tool, Advanced Data Planning Tool (ADAPT), for statistical offices to adapt to new demands and changing data practices. In particular, it helps data producers in the NSS consult, cost and chart their indicators as defined by the National Development Plan. ADAPT is a web-based planning tool developed and supported by PARIS21. ADAPT's Costing Module provides solutions for statistical agencies interested in systematically estimating the cost of various statistical activities.

The tool is a spreadsheet that helps to cost each activity covering staff, consultants, travels and per diems, equipment and supplies, other direct costs and indirect costs (overhead, etc.). It also

identifies whether technical assistance is required. It identifies data gaps and source of funding for the activity. While the tool is still at piloting stage, its costing model is usable and was used to cost the Sector Statistics Plans and the NSDS.

(b) Cost assumptions

The following assumptions were made in costing the Sector Statistics Plans and NSDS:

Key Terms

Direct costs**:** Costs that are completely attributed to the production of goods and services such as transport, tools, labor, direct material, etc.

Indirect Costs**:** Costs that are required to complete but are not directly attributed to the production of goods and services such as overhead cost, office cost, security cost, utilities, salary of a director/manager of multiple activities, etc.

Human resources: For accessibility to local labor market, affordability and sustainability as well as understanding of Somali context, first priority is given to the recruitment of Somali nationals through **Capacity Injection Mechanism (CIM)**[3] under the following two streams:

1. National Managers - "Stream A": A government plus scale design for positions of national managers under CIM of which government is unable to fill. The pay scale for these positions is based on existing government salary. These are specified.

2. National Technical Advisors - "Stream B": Technical advisor salary scale, which applies to positions for national advisor outside government line management structure. The pay scale of these positions is based on educational background and work experience. Salaries for Principle Advisor, Senior Specialist Advisor, Specialist Advisor, and Technical Advisor is specified.

3. International consultants will be utilized for short-term technical assistance and where Somali nationals with the required technical knowledge and experience are not available. Individual/firm consultants based in the region are preferred and the pay scale for international consultants will be based on UN guidelines. Both international and national rate for short-term and long-term Technical Assistance is specified.

[3] Somalia Public Sector Capacity Injection Project (CIM) addresses the critical need to inject capacity in the Somali civil service, creating the foundational capacity on which international development partners and government can build to address the immense challenge of rebuilding institutions and supporting security and economic progress. The project has provided guidelines on how to handle budget processes.

4. Per diem rates for national and international staff within Somalia and outside Somalia is specified. So too are travel costs within Somalia, East Africa and internationally.

5. Provision is made for holding workshops in Mogadishu and in Nairobi.

(c) Indicative budget

The following is indicative budget for the HSSP over the five year period (2018-2022) based on the above costings:

Table 5: NSDS indicative budget by goal and year

Strategic goal	Cost (USD)					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Goal 1: Improved awareness and use of health statistics	89,470	43,240	43,240	43,240	43,240	262,430
Goal 2: Better coordinated health statistical system	15,765	71,800	41,540	11,340	11,340	151,785
Goal 3: Improved capacity and strengthened human resource for health statistics	79,080	159,730	168,820	145,040	154,420	707,090
Total	**184,315**	**274,770**	**253,600**	**199,620**	**209,000**	**1,121,305**

The indicative budget for implementation of this strategy stands at US$ 1,121,305 over the five-year period. This budget was prepared with the assistance of PARIS21 and the World Bank. It should be noted that the biggest item in the budget is on establishment of district health management information offices and introduction of DHIS2 using a phased approach. It takes a little more than a third of the entire budget.

4.4.2 Funding arrangements

It is expected that funding for the implementation of the plan will come from both the Federal Government and development partners. Accordingly, resource mobilization for this plan will be a joint responsibility of the ministry and Federal Government. The ministry will be expected to integrate the plan into the Sector Strategic Plan and annual budget framework documents to enable funding to be made from the Government. It is also expected that the Department of Policy and Planning in the ministry will lobby for resources from various development partners and the government of Somalia to contribute to the implementation of the plan.

ANNEX: ACTION PLAN

Strategic objective	Strategic initiative	Output	Performance indicator	Milestone/target
Goal 1: Improved awareness and use of health statistics				
1.1. Develop a policy framework for the health sector with a functional health management information system	1. Develop health information policy and disseminate it among all stakeholders 2. Develop a Costed HIS statistical plan and share with stakeholders and donors for support and funding 3. Build capacity for utilization of the health information for policy, decision making, planning, monitoring and evaluation.	Health information policy HIS Statistical Plan Reports of capacity building activities for data users	Health information policy in place and disseminated HIS Statistical Plan in place and shared with stakeholders Number of capacity building activities undertaken for users Number of health information users trained	Health information policy developed by September 2018 HIS Statistical Plan in place and shared with stakeholders by April 2018 At least two health information users workshops each year
1.2. To strengthen the institutional framework for a functional health management information system	1. Establish district health management information offices and introduce DHIS2 using phased approach. 2. Develop/disseminate HMIS standards tools, guidelines and standard operating	District health management information offices Documented DHIS2 Documentation of HMIS standards tools, guidelines and standard operating procedures (SOPs) for the data collection,	Numbers of district health management information offices established DHIS2 in place and functional. Numbers of HMIS standard tools, guidelines and standard operating procedures (SOPs) for the data collection, analysis, and reporting	District health management information offices and introduce DHIS2 using phased approach. by January 2020. Establish HMIS standard tools, guidelines and standard operating procedures (SOPs) for the data collection, analysis, and reporting

	procedures (SOPs) for the data collection, analysis, and reporting.	analysis, and reporting.	produced.	by November 2019.
	3. Identify relevant HMIS stakeholders, establish national HMIS Steering Committee and revitalize Regional and District HMIS Technical Working Group	Profile of HMIS stakeholders HMIS Steering Committee Regional and District HMIS Technical Working Group	Documentation on profile of HMIS stakeholders HMIS Steering Committee established and functional Regional and District HMIS Technical Working Group established and functional	Profile of HMIS stakeholders established by April 2019 HMIS Steering Committee established by December 2018 Regional and District HMIS Technical Working Group established by October 2019.
	4. Mobilize adequate resources for national HMIS	Resources for national HMIS	Amount of resources from government and development partners	Undertake a donor's conference for HSSP in October 2018
Goal 2: Improve coordination of the HMIS				
2.1. Enhance institutional and technical coordination of the HMIS	1. Review and harmonize all data collection and reporting 2. Integrate vertical data collection tools and reporting systems into the routine HMIS 3. Implement/update the comprehensive assessment of the vital registration system done in 2015 and develop a plan to strengthen the vital registration unit both	Harmonized data collection tools and reporting Integrated data system Updated comprehensive assessment of vital registration system Plan to strengthen the strengthen the vital registration unit	Harmonized data collection tools and reporting developed Vertical data collection tools and reporting systems integrated into the routine HMIS The integration of all vertical reporting system in to the one health Management information system Plan to strengthen the strengthen the vital registration unit developed	Harmonized data collection tools and reporting by February 2019 Integrate all vertical reporting system in to the one health Management information system by October 2019 Update the comprehensive assessment of vital registration system in April 2019 Develop the plan by December 2019 to strengthen the vital registration unit

	technically and logistically. 4. Improve an integrated data warehouse (DHIS2) and country archive system 5. Establish an integrated DHIS2 data visualized and portal system for dissemination of all available data and meta-data resources.	Integrated data warehouse and country archive system Integrated DHIS2 data visualized and portal system for dissemination of all available data and meta-data resources	Integrated data warehouse and country archive system developed DHIS2 data visualized and portal system for dissemination of all available data and meta-data resources developed	Improve an integrated data warehouse (DHIS2) and country archive system by December 2021 Develop DHIS2 data visualized and portal system for dissemination of all available data and meta-data resources by December 2021
2.2. To enhance early warning and integrate disease and nutrition surveillance systems into national HMIS	1. Strengthen integrated disease surveillance and response (IDSR) information system. 2. Strengthen nutrition surveillance system. 3. Develop and implement community-based IDSR and nutrition surveillance strategy. 4. Develop and pilot demographic surveillance sites (DSS) in Somalia in collaboration with academic and institutions that deal with population. 5. Integrate & strengthen EPI surveillance system active and passive	Integrated disease surveillance and response (IDSR) information system Strengthened nutrition surveillance system Community-based IDSR and nutrition surveillance strategy Demographic surveillance sites EPI surveillance system	Integrated disease surveillance and response (IDSR) information system developed Nutrition surveillance system strengthened Community-based IDSR and nutrition surveillance strategy in place Demographic surveillance sites developed and functional EPI surveillance system developed and functional	Develop integrated disease surveillance and response (IDSR) information system by June 2019 Nutrition surveillance system strengthened by June 2020 Community-based IDSR and nutrition surveillance strategy in place by December 2019 Demographic surveillance sites developed by June 2019 Develop the EPI surveillance system by June 2019

Goal 3: Enhance the quality and usability of HMI at all levels				
3.1. Improve routine data collection and management	1. Undertake advocacy among policy makers, planners, and implementers for use of health information in planning and decision making at all levels	Statistical advocacy programme	Statistical advocacy programme developed	Statistical advocacy programme developed by August 2018
	2. Build the capacity of staff at all levels to follow HMIS standards, guidelines and SOPs for data collection, analysis and report writing.	Trained staff to follow HMIS standards, guidelines and SOPs for data collection, analysis and report writing	Number of staff trained staff to follow HMIS standards, guidelines and SOPs for data collection, analysis and report writing	Undertake training of staff at all levels to follow HMIS standards, guidelines and SOPs for data collection, analysis and report writing at least twice a year
	3. Produce quarterly and annual health statistics for both operational and strategic management.	Quarterly and annual health statistical reports	Quarterly and annual health statistical reports produced	Start production of qquarterly and annual health statistical reports in January 2019
	4. Increase access and use of ICT technology for health information management information system	ICT-driven HMIS	All data related operations in HMIS are digitized All data related operations in HMIS digitized by December	All data related operations in HMIS digitized by December 2019
	5. Strengthen logistics management information systems, human resource information system,	All components of the HMIS strengthened	Reports on strengthening the HMIS	All components of the HMIS strengthened by December 2020

	health infrastructure information system, income and expenditure tracking system, etc.			
	6. Develop/improve community health information system data collection tools at community level	Community health information system data collection tools	Community health information system data collection tools developed and in use	Community health information system data collection tools developed by September 2019
	7. Initiate data collection activities from private sector	Health statistics from private sector	Reports on health statistics from private sector	Initiate data collection activities from private sector in 2019
3.2. Improve health data management at district level	**8.** To institutionalize periodic review of operational data sources, to identify duplication, unmet needs and correction while controlling proliferation of data collection system**.**	Review reports of the HMIS	Number of review reports of the HMIS	Undertake a review of HMIS every two years
	9. To strength district based integrated disease surveillance and response (IDSR)	Quality data from district based integrated disease surveillance and response (IDSR)	Quality reports on data from district based integrated disease surveillance and response (IDSR)	Undertake strengthening of district based integrated disease surveillance and response (IDSR) in 2018 and 2019
	10. To participate in improving vital registration coverage and capacity building for the sub-system.	Improved data from vital registration	Quality reports on data from vital registration system	Pparticipate in improving vital registration coverage and capacity building for the sub-system from June 2018.