Ministry of Health

THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
MINISTRY OF HEALTH

National Human Resource For Health Strategic Plan For Ethiopia 2016-2025

Addis Ababa, 2016

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FOREWORD

Over the last decade or so, Ethiopia has made unparalleled expansion of tertiary education facilities. The health sector, in close collaboration with the education sector, has implemented a step-wise expansion in enrollment and training of various health science disciplines. The focus of successive health sector development programs has been to build a robust primary health care. Therefore, the development of human resource for health (HRH) has prioritized training of cadres fit for primary health care purpose. This, by and large, has been successfully implemented and helped our country make good progress in addressing priority health problems.

While additional investments need to be made to further strengthen the primary health care platform, we need to embark on training of health workforce for secondary and tertiary care as well. As the economy of the country continues to grow at impressive pace, the likelihood that our country will join the middle income category by 2025 is very high. This economic growth coupled with rapid urbanization and change in lifestyle will result in triple burden of disease; a rise in non-communicable diseases, injury and trauma, and communicable diseases. This calls for prudent HRH planning to ready the health system address these existing and emerging health challenges. This, Human Resources for Health Strategic Plan 2016-2025, have been prepared in order to guide production, recruitment, deployment and performance support for health workforce in the sector.

The HRH strategic plan is aligned with the Health Sector Transformation Plan and Country's become a low middle income country by 2035; the World Health Organization's road map for scaling up human resources for Health for improved health services delivery in Africa Regions 2012-2025 and National Health Policy and Strategies, among others. Our experience in Ethiopia underscored the policy direction, leadership and understanding of a balance between urgent and practical actions are guided by clear policy framework. On the other hand, we faced with several challenges in quality of training and education of health workforce, human resources leadership, governance and management systems and practices. This strategic plan is aimed to guide short-term and medium range human resources planning, development and management in the health sector to overcome these challenges.

Finally, across all nations, a stronger and collaborative way of working is needed to develop human resource for health to deliver quality health services towards achieving Sustainable Development Goals. We are committed to learn from other countries in the process of implementation of the strategic plan and will document and share our experience.

Dr. Kesete-Birhan Admasu
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ACRONYMS

AHWO	*Africa Health Workforce Observatory*
BPR	Business Process Reengineering
BSC	Balanced Score Card
CAR	Contraceptive Acceptance Rate
CoC	Certificate of Competency
CPD	Continued Professional Development
CPR	Contraceptive Prevalence Rate
CSA	Central Statistics Authority
DHRDA	Directorate of Human Resources Development and Administration
DHFPL	Directorate of Health Facilities and Professionals Licensing
FMHACA	Food Medicine and Health Care Administration and Control Authority
GDP	Gross Domestic Product
GP	General Practitioner
HERQA	Higher Education Relevance and Quality Agency
HEW	Health Extension Worker
HIT	Health Information Technician
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HO	Health Officer
HR	Human Resource
HRH	Human Resource for Health
HRM	Human Resource Management
HRIS	Human Resource Information System
HSDP	Health Sector Development program
HSTP	Health Sector Transformation Plan
ICT	Information Communication Technology
IESO	Integrated Emergency Surgical Officers
IST	In-service training
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
MoH	Ministry of Health
MoU	Memorandum of Understanding
NHA	National Health Account

NGO	Non-Governmental Organization
PHCU	Primary Health Care Unit
PPP	Purchasing Power Parity; Public-Private Partnership
PSE	Pre-Service Education
RHB	Regional Health Bureau
SNNPR	Southern Nations, Nationalities and Peoples Region
SP	Strategic Plan
TVET	Technical and Vocational Education and Training
USAID	United States Agency for International Development
WHO	World Health Organization
WISN	Workload Indicator for Staffing Need

EXECUTIVE SUMMARY

COUNTRY'S HUMAN RESOURCES FOR HEALTH (HRH) CONTEXT

Ethiopia has achieved a considerable expansion in primary health care services in the last decade with massive scale up of health infrastructure, health workforce development and deployment, improved availability of equipment and essential medical supplies, and increased responsiveness to the population health need.

Given the country's emphasis on expanding primary healthcare services, there was a focus on growing the low and mid-level health workforce. The effort to increase mid-level health workers gathered momentum in 2003 when the government introduced the health extension program, Ethiopia's flagship program. This policy prioritization of massively expanding the primary care health workforce was translated into concrete targets and strategic initiatives that were included in the successive health sector development programs III and IV implemented from 2007-2015.

A human resources for health situation analysis conducted in 2015/2016showed that the human resources development and management targets set out in the HSDP-IV were achieved through sustained expansion of health workers', including an increased number of education and training programs for various cadres of health professionals. For example, between 2009 and 2014/15:

- The number of medical schools has increased from 7 to 35 (28 Public and 7 Private)
- Annual enrollment in medical students has increased from 200 to 4,000.
- The number of physicians in the country has increased from 1,540to 5,372.
- Midwifery teaching institutions have also increased from 23 to 49.
- The number of midwives increased from 1,270 in 2009 to 11,349

Apart from these selected health professionals, overall health professionals to population ratio increased from 0.84 per 1000 in 2010[1] to 1.5 per 1000 in 2016[2].This is remarkable progress for a 5 year period. If the current pace is sustained, Ethiopia will be able to meet the minimum threshold of health professionals to population ratio of 2.3 per 1000 population, the 2025 bench mark set by the World Health Organization (WHO), for Sub-Saharan Africa.

[1] WHO (2010): Human Resources for Health Country Profile Ethiopia. Africa Health Workforce Observatory. 2010

[2]MoH (2015): Routine HRIS data, 2015

STRATEGIC CHALLENGES AND ISSUES

Despite the remarkable achievements stated above, the following are some of the remaining challenges of HRH in Ethiopia:

- *Quality of health workers' education and training*: rapid expansion of health workers education and training was not matched with essential inputs such as well qualified faculty members, skills lab materials, library and resource centers as well as practical training facilities. Thus quality of training, and graduates has become a major focus of the human resources development for the health sector.
- *Geographical distribution and professional skills mix*: Despite the improvement in number of health workers nationally, there are critical shortages of some health profession; furthermore, improvements are needed for equitable distribution of health workers particularly in remote and rural areas. This is one of the major challenges to achieve universal health service coverage.
- *Human Resources Management (HRM)*: despite significant achievements in health professionals training, recruitment and deployment, other HRM functions remained largely traditional with focus on routine personnel administration tasks instead of playing strategic role in health sector transformation. HRM structure and staffing levels are inadequate. HRM capacity is generally weak with special needs at decentralized district levels. The targets related to health workforce motivation and retention have not shown significant improvements despite the incentives implemented by Federal Ministry of Health (FMoH) and Regional Health Bureaus (RHBs).
- *Human Resources Information System (HRIS)*: The national HRIS system has not been effectively utilized to collect and manage HR information and data. As a result, there is a lack of up-to-date data for planning and evidence-based management decision-making.
- *Health Workforce Regulation*: structures and institutions for health workforce regulation have been established. However, the capacity of these institutions is not well developed, and requires additional investments.

To comprehensively address the HRH challenges, seven strategic issues were identified. These include:

- Existence of weak leadership and governance for HRH at various levels of the health system
- Poor quality of health workforce education and training
- Underdeveloped human resources management systems and practices
- Weak HR information system and evidence-driven HRH planning
- Insufficient financial resources for HR development and management

- Weak interagency coordination for HRH development and management
- Weak HRH regulatory capacity

THE STRATEGIC PLAN (SP)

- The development and strategic direction of this plan was guided by the Ministry of Health HRH vision, goal, objectives and guiding principles.
- **The vision** of HRH is to have an adequate number of well qualified, committed, compassionate, respectful and caring health workers contributing to the health sector vision of Ethiopia.
- **The Strategic goal** of the HRH SP is to ensure availability of an adequate number of well qualified health professionals with an appropriate mix of skills; equitably distributed, motivated, retained and perform well to achieve universal access to health care in Ethiopia.
- **The Objectives of the SP** are organized into four outcome areas. These outcomes will address the strategic issues identified during the situational analysis. The four outcomes include:
  - HRH policy, planning and partnership strengthened at all levels;
  - Quantity, Quality and equitable deployment and distribution of the health workforce;
  - Leadership, governance and human resources management capacity and practices improved at all levels of the health system
  - Attraction and retention of health professionals including measures for improving their commitment, distribution, performance, remuneration and their working and living conditions.

Strategic objectives were identified to achieve each outcome area - thus, a total of fourteen (14) strategic objectives have been included in the plan. Several strategic actions/interventions have been developed to achieve each strategic objective, and a timeline for implementation was agreed upon. Implementation plan matrices were developed for actions under each strategic outcome and objectives (Chapter 5). Monitoring and evaluation activities and matrices have also been incorporated into the SP (Chapter 6).

HEALTH WORKFORCE STOCK AND DEMANDS

- HR demand was projected based on estimated population-based health facility expansion. The total health workforce in the base year (2016) was 219,542 out of which 150,534 (68%) were health professionals of various categories working in the health facilities and management structures. By applying the population standards (population served by) for various categories of health facilities such as Health Post, Health Center, Primary Hospital, General Hospital and Tertiary hospitals, the number of health facilities required were estimated for the planning period. The staffing needs of those health facilities were estimated by applying the minimum staffing standards developed by the Food, Medicine and Healthcare Administration and Control Authority (FMHACA) in 2012 for these categories of public health facilities, and experts' consensus for other health professional categories that were not included in the FMHACA staffing norms.
- Based on the projection, the number of health professionals of various categories will progressively increase to 248,538 by 2020 and 374,368 by 2025. The numeric changes for some of the key health professional categories include:
    - General medical practitioners will increase to 9,836 by 2020 and 15,676 by 2025
    - Nurses (all categories), will increase to 85,580 by 2020, and 127,299 by 2025
    - Midwives (all categories) will increase to 19,620 by 2020 and 29,686 by 2025
    - Anesthesia professionals (all categories including anesthesiologists and anesthesia specialists) will increase to 3,284 by 2020 and 5,769 by 2025
- In addition, there will be a total of 95,488 management/administrative and support staff by 2020 and this number will increase to 139,652 by 2025. The proportion of health professionals will remain between 68-73% of the total health workforce.
- These projections need to be updated regularly as more evidence becomes available that reflects both the feasibility of this projected increase in the health workforce, and the changing health care needs. This will be accomplished with the help of the monitoring and evaluation procedures included in this SP.

ORGANIZATION OF THE STRATEGIC PLAN DOCUMENT

This document is organized into seven chapters. The First Chapter- Introduction and Backgrounds, describes the country'sdemographic and socio-economic profile, key health status indicators, policy and planning context, and rationale and process of HRH SP development. The Second Chapter- HRH Situation Analysis- outlines the results of the situational analysis in major HRH thematic areas: leadership and governance, education and training with quality and regulation, HR management and performance, HR information, financing HRH and partnership and collaboration. Chapter 3-Strategic Direction- summarizes the strategic direction of the SP including vision, objectives, guiding principles and strategic plan outcomes, and strategic objectives. The chapter also contains a schematic summarizing the SP. Chapter 4- Outcomes, Strategic Objectives and Actions- is the heart of the strategic plan and includes the four outcome areas. Under each outcome, there are strategic objectives with strategic actions. Chapter 5- Strategic Implementation Plan- articulates approaches of implementing and coordinating the SP across implementation levels and sectors. It also outlines the implementation timelines for the different strategic actions between 2016 and 2025. Chapter 6: Monitoring and evaluation Framework provides an overview of the monitoring approach and key indicators, baselines and targets for each outcome area. Chapter 7: Projections, Costing and Budget- highlights the health workforce needs and the estimated costs/budget required to implement the SP.

STRATEGIC PLAN MAP (SUMMARY)

Vision	The Vision of HRH SP is to have an adequate number of well qualified, committed, compassionate, respectful and caring health workers contributing to the health sector vision of Ethiopia.			
Strategic Goal	The Strategic goal of the HRH SP is to ensure availability of an adequate number of well qualified health professionals with an appropriate mix of skills; equitably distributed, motivated, retained and perform well to achieve universal access to health care in Ethiopia.			
Strategic Outcomes	HRH regulation, planning and partnership strengthened	Health workforce education and training capacity and regulation improved	Leadership, governance and HRM capacity and practices strengthened	Availability, retention and performance of the health workforce optimized
Strategic Objectives	Develop and implement appropriate HRH standards, guidelines and legislative frameworks Establish a comprehensive Human Resources Information System (HRIS) and strengthen data use for decision-making Strengthen HRH Planning at all levels Create a gender responsive workforce Engage with diverse stakeholders and partners on national HRH dialogue and actions	Improve quality of pre-service education and training for the health workforce Strengthen in-service training and continuing professional development for the health workforce Strengthen accreditation, licensing and regulation of training institutions and health professionals	Strengthen HRH leadership and governance structures and capacity at all levels Strengthen HRM capacity and practices at all levels	Improve health worker recruitment and deployment at all levels Reduce inequity in geographic distribution and skill mix of health care workers Enhance staff motivation and retention Improve health workforce performance and productivity

CHAPTER 1:

BACKGROUND AND INTRODUCTION

1.1. DEMOGRAPHIC AND SOCIO ECONOMIC PROFILE

Ethiopia is an ancient African country with over 80 ethnic groups and a rich cultural heritage. It is a developing country with an estimated annual per capita income of USD 1432 (PPP)[3]. The population is growing at an annual rate of 2.6% and the 2016 projected population was 92.4 in 2016[4], with approximately 74.5 million living and working in rural areas.

TABLE 1.1. KEY DEMOGRAPHIC, SOCIO-ECONOMIC AND HEALTH INDICATORS

Basic Indicators	Levels	Data Sources
Demographic Indicators		
Projected Total population (millions), 2016	92.4	Central Statistics Authority of Ethiopia. Population Projection 2014-2017. http://www.csa.gov.et/ Accessed on April 26, 2016
Urbanized population (%), 2016	18.3	
Population Annual Growth rate (%), 2016	2.6	
Life expectancy at birth (years), 2012	63	
Economic Indicators		
GDP per capita (US$), 2013	$630	2013/2014 (UNDP)[5]
Gross National Income, 2014	$550	The World Bank[6]
Population below international poverty line of US$1.25 per day (%), (in 2015)	22%	HSTP 2015/16-2019/20
Public spending as a % of GDP (2007-2011) allocated to: health	2.6	UNICEF, December 2013 http://www.unicef.org/infobycountry/ethiopia_statistics.thml#0 Accessed on September 2, 2016
Public spending as a % of GDP (2008-2010) allocated to: education	4.7	
Total adult literacy rate (%); 2008-2012	39	

1.2. GOVERNANCE AND ADMINISTRATION

The 1994 Constitution of the country introduced a federal government structure composed of nine Regional States: Tigray, Afar, Amhara, Oromia, Somali, Beninshangul-Gumuz, Southern Nations, Nationalities and Peoples Region (SNNPR), Gambella and Harari, and two City Administrations: Addis Ababa and Dire

[3] The World Bank. Ethiopia Economic Indicators, 2015. Accessed from http://www.tradingeconomics.com/ethiopia/indicators On 1May 2016

[4] Central Statistics Authority (Ethiopia). Available on http://www.csa.gov.et/ accessed on 27 November 2015.

[5] *Ethiopia Quarterly Key Economic and Social Indicators produced by the Policy Advisory Unit, UNDP Ethiopia*
http://www.undp.org/content/dam/ethiopia/docs/Ethiopia-Key%20Economic%20Indicators-%202015%20No-2.pdf

[6] Bankhttp://data.worldbank.org/country/ethiopia

Dawa. The National Regional States and City Administrations are further sub-divided into 82 Zones and 934 Woredas (districts)[7], which are the basic decentralized administrative units representing 100,000 people governed by an administrative council composed of elected members. Health care provision in Ethiopia is predominately public and it is through this decentralized structure that national health initiatives are implemented.

1.2. ETHIOPIA HEALTH STATUS

Ethiopia has made significant improvements in many health indicators. The country has reduced under-five mortality by two-thirds from the 1990 baseline, meeting the Millennium Development Goal (MDG) target three years ahead of the schedule; new HIV infections have gone down by more than 90%, and there has been no generalized malaria epidemic in more than 8 years. The number of malaria cases and death due to malaria has dropped by 67% and 48% respectively[8]. Recent reports have also shown that Ethiopia has reduced maternal mortality by 72%, and the Contraceptive Prevalence Rate (CPR) increased from 29% in 2011 to 42% in 2014. These great successes are mainly due to well-coordinated, extensive efforts and intensive investment of the government, partners and the community at large to strengthen and expand the primary health care. Table 1.2 below includes the status of some of the key health indices:

TABLE 1.2. KEY HEALTH INDICATORS

Health Indicators	Level	Data Sources
Households that have access to an improved source of drinking water.	54.5%	Ethiopia Mini DHS 2014
Contraceptive acceptance rate among married women	69.9%	MoH Annual Performance Report, 2015
Under-5 mortality rate (U5MR), 2012 (Gross)	59 per 1000 live births	Countdown 2015[9] 204 (1990)
Infant mortality rate (under 1), 2012	42.9[4] per 1000 live births	Countdown 2015[9] 121 (1990)
Institutional delivery	15.4% (63.0% urban versus 10.4% rural).	Ethiopia Mini DHS 2014
Maternal mortality ratio	353 maternal deaths per 100,000 live births	WHO MMR estimate 2015

Source: *Ethiopia Demographic Health survey, 2011; HSDP Annual Performance Report (2012/2013) UNICEF, December 2013. http://www.unicef.org/infobycountry/ethiopia_statistics.html#0*

1.3. POLICY AND PLANNING CONTEXT

[7] HRH Project (2016): Improving HRM in Ethiopia for improved health services delivery and health outcomes. Compiled from 11 Regional Health Bureau Reports. April 2016. Addis Ababa. Unpublished Regional Reports

[8] HSDP-IV Woreda-Based Health Sector Annual Core Plan EFY 2007 (2014/2015), page 1, MOH, 2014. Addis Ababa

[9] http://www.countdown2015mnch.org/documents/2015Report/Ethiopia_2015.pdf

- Several policy and planning documents at the national and regional level bear influence on the HRH situation of the country. As a result, development of the HRH Strategic plan was based on a number of policy and planning documents including the Ethiopian Health Policy (1993), Health Sector Transformation Plan (2015– 2020) and Visioning Ethiopia's Path Towards Universal Health Coverage Through Primary Health Care - Visioning 2035 (March 2014), among others.

1.3.1. Health Policy of Ethiopia

The Health Policy of the transitional government of Ethiopia, 1993 makes a number of recommendations regarding HRH. These recommendations include: Training of community based frontline and middle level health workers up to the appropriate professional standards and recruitment and training of these categories at regional and local levels. It also stipulates the training of trainers (ToT) for managerial and supportive categories of workers to support the health service objectives, development of appropriate continuing education for all categories of workers in the health sector, and development of career structure and incentive mechanisms for all categories of HRH

1.3.2. HRH commitment for universal health coverage

The Federal Democratic Republic of Ethiopia constitution emphasizes equitable access to public services. The country renewed its commitment to ensure Universal Health Coverage for its population during the third Global HRH Forum held in Recife, Brazil (November 2013). Two broad commitments were:

- **Scale-up quality pre-service education of HRH focusing on those cadres in critical shortage** by expanding education for health workers to meet 100 % of the staffing standard, considering the skill mix in all primary health care facilities, improving quality of health professionals education by implementing program level accreditation in both public and private training institutions, and improving quality of health professionals education by instituting a competency-based pre-licensure system for all health workers by 2017.
- **Improve human resources for health planning and management capacity** by strengthening pre-service and in-service training of human resources for health managers

1.3.3. Pre-service education

Pre-service education in the country is governed by the Higher Education Proclamation No.650/2009 and Technical and Vocational Education and Training (TVET) proclamation No.391/2004. The higher education proclamation emphasizes institutional transformation, legal frameworks for critical issues of relevance and quality, and governance of expanding higher education among others. The TVET proclamation emphasizes production of a competent younger generation workforce for various industries through technical and vocational education and training system.

1.3.4. Regulatory policy frameworks

The Higher Education Relevance and Quality Agency (HERQA) and FMHACA regulate health workforce development and professional practices. The two agencies were established by the Proclamation No. 351/2003 and 661/2009, respectively.

HERQAs mandate is to ensure relevance and quality of pre-service education and training in higher educational institutions in the country. FMHACA's mandate is to avert health problems due to substandard health institutions, incompetent and unethical health professionals, poor environmental health and communicable diseases among others.

1.3.5. National in-service (IST) directive and implementation guideline

This directive aims at facilitating the delivery of standardized IST courses by local training institutions. The directive also defines the roles and responsibilities of various stakeholders including MoH, FMHACA, RHBs, Zonal Health Departments, local IST Institutions and Health Professional associations.

The purpose of the National IST Implementation Guideline is to promote and guide standardization and institutionalization of IST in the health sector in Ethiopia. The guideline aims at ensuring that in-service trainings are need based, standardized, institutionalized, and that an updated in-service training database is available at all levels.

1.3.6. Public Service and Human Resources Policies

Human Resources Development (HRD) and management in the health sector is governed by Public Service and HR Development Proclamations and other relevant policy and legal frameworks at national and regional levels. Accordingly, Proclamation No. 515/2007 is the major policy framework for HRD and administration at the national level. The regional governments have adapted this proclamation to reflect their local context and applied it to HR development and management functions.

1.3.7. Health Sector Transformation Plan 2015/16-2019/20

Human resources for the health sector is one of the major capacity building strategic objectives (CB 2) of the Health Sector Transformation Plan (HSTP) 2015/16-2019/2020[10]. This strategic objective entails human resources planning, development and management.

Human resources management focuses on recruitment as per the need, deployment of staff, performance management and motivation. It also includes leadership development, promoting women in leadership positions and community capacity development. One of the main focuses of this strategic objective is to promote patient-centered, respectful and compassionate care by all health professionals. This requires multifaceted interventions starting from recruiting students who have the drive and motivation to be health professionals, to continuously encouraging health science students to reflect on what it means to be a health professional and inspiring practicing health professionals to demonstrate commitment to their country, people and care for their patients. CB2 HSTP targets are summarized in Table 1.3, below:

TABLE 1.3: SUMMARY OF HRH COMPONENTS OF HSTP (2015/16-2019/20)

Result CB2	Improve development and management of human resources for health

[10] Health Sector Transformation Plan (HSTP) EFY 2008-2012 (2015/2016-2019/2020). Ministry of Health. Addis Ababa

Outcome	• An adequate number of competent, motivated and committed health professionals are available to provide health care to all Ethiopians
Key Components	• Strengthened national agenda of developing compassionate, respectful and caring health professionals • Strengthened HRH strategy and planning at all levels • Increased enrollment and improved quality of pre-service training
Strategic Initiatives	• Scale up training and development of health professionals based on health needs taking into account current stock, demand, supply, skill mix and distribution in public and private sectors, as well as local and global labor markets. • Maintain and improve competence of the health workforce through effective, efficient and sustainable continuing professional development. • Provide support for quality audits of all existing pre-service training programs. • Strengthen linkages between health science training institutions and the industry • Establish twinning between national/international health science training institutions
Strategic Actions	• Train adequate number of health workers with appropriate skill mix • Enhance human resources management practice including motivation and retention schemes • Strengthen Human Resources Information System (HRIS) • Enhance gender mainstreaming capacity of the health workforce • Reduce inequity in geographic distribution, skill and gender mix of health care workers. • Implement Continuing Professional Development • Enhance Motivation and retention. • Enhance performance and productivity
Performance Measures	• Increase stock of health workforce (disaggregated by cadres and regions) from the current 0.8/1000 to 1.6/1000[11] • Reduce staff attrition rate from 6.6% to 4%.

1.4. RATIONALE FOR THE HRH STRATEGIC PLAN

The MOH recognizes that successful implementation of the various health programs and reform initiatives is dependent on the availability of an adequate number of well qualified, and equitably distributed, clinical, public health and administrative personnel in the health sector. The HRH SP was developed to meet health service demands of the Ethiopian population. Below are the main reasons for the development of the HRH strategic Plan:

1.4.1. Reflect HSTP Priorities and Targets

[11]Health workforce density in 2016 was 1.63/1000 as opposed to HSTP's 2020 target of 1.6/1000. The HSTP target was lower due to lack of accurate HR data at that time. However, the density will reach 2.3/1000 by 2020.

This is the most important bench mark for the HRH SP as the HSTP aspires to provide equitable and quality health services to all Ethiopians. HRH is a major strategic objective in the HSTP 2015/16-2019/2020. In addition, the HSTP requires investment in HRH across all strategic objectives. This HRH strategic plan elaborates the high-level HRH investments indicated in the HSTP.

1.4.2. Align with Visioning Ethiopia's Path Towards Universal Health Coverage Through Primary Health Care

The visioning document was developed to pave Ethiopia's path towards Universal Health Coverage through Primary Health Care. The document that was produced in March 2014 identifies six strategic areas that highlight priority areas for continued investment to improve primary care. These include: (1) empowering the community to play a significant role in the health sector, (2) strengthening primary health care units (PHCU) within the larger health sector, (3) ensuring a robust Human Resources Development system that is commensurate with socio economic development of the country as a Lower Middle Income Country by 2025 and a Middle Income country by 2035, (4) engaging the private sector in support of the MOH vision, (5) developing sustainable financing mechanisms and (6) developing institutional capacity to be responsive to changing economic, social, environmental, technical, and epidemiologic contexts. These strategies were informed by an in-depth situational analysis conducted in 2012, which documented successes and continued challenges faced by the health sector. Each strategic area is supported by sub-strategies that offer more specific recommendations. All of the above strategies are relevant to this HRH SP.

CHAPTER 2:

SITUATIONAL ANALYSIS OF HRH IN ETHIOPIA

This section describes the existing HRH situation in Ethiopia based on the situational analysis d in 2016. Information is provided for seven thematic areas: leadership and governance, health workforce density and distribution, education and training, human resources management, HRH policy and legislation, and partnership and collaboration for HRH.

2.1. HRH LEADERSHIP AND GOVERNANCE

There are designated HR leadership and governance structures in the health sector at national and regional levels. These include the Directorate of HR Development and Administration (DHRDA) at the national level, and the HR Development and Administration Support Process at RHBs. In addition, there are health professionals' regulatory agencies at national and regional levels. The Ministry of Public Service and Human Resource Development, and Regional Bureaus of Public Service and Human Resource Development, are also involved in HRH decision making.

The DHRDA at national level is responsible for HRH planning, oversight of pre-service education, in-service training and continued professional development; recruitment and deployment of graduates from various universities as well as personnel administration. The directorate also serves as a liaison between the Ministry of Education and the Ministry of Public Service and Human Resource Development. The directorate also conducts assessments to guide HRH planning and management. The Directorate for Health Facility and Health Professionals Licensing of the Food, Medicine and Health Care Administration and Control Agency (FMHACA) and its regulatory work processes in the RHBs are responsible for registration and licensing/relicensing of health professionals.

The Human Resources Development and Administration Support Process (HRDA SP) is responsible for HRH planning, recruitment, deployment and personnel administration functions at RHBs. However, this structure is embedded into the Public Service and HR Development Pool at Zonal and District Health Offices in many Regions. Health centers and Hospitals have HR staff within Administration and finance functions.

The existing HR governance and leadership challenges include lack of dedicated HR structures at zonal, woreda and health facility levels (in many regions). Where the organizational structure exists, the number, educational qualification and experience of HR staff is inadequate to effectively lead and govern HRH in the sector. As a result, HRH decisions are subjected to weak governance and leadership practices such as incomplete HRH planning, inadequate HR development and management; lack of transparency, accountability and good governance. The human resource budget is also limited to staff salaries with no or insufficient budget to address other HR functions such as workforce motivation, retention and performance support; training and capacity building for HR staff and improvement of the work environment.

2.2. HUMAN RESOURCES MANAGEMENT

2.2.1. Workforce planning

The DHRDA at the Federal Ministry of Health and HRDA Support process in the RHBs are responsible for health workforce planning at national and regional levels, respectively. The workforce planning has been guided by successive health sector development plans (HSDPs), the current HSTP and annual HR operational plans. In the absence of a national HRH Strategic plan, workforce demand is determined by health facility staffing standards/norms developed by FMHACA and approved in 2012. The staffing standards for the health management structures at national, regional and local levels are determined by the number of positions approved by the Public Service and HR Development during health sector business process reengineering (BPR). The staffing standards are applied to estimate the number, professional categories and minimum position requirements for the workforce planning.

Existing challenges with workforce planning include a weak human resources information system (HRIS) to generate accurate and timely data for comprehensive health workforce planning, lack of dedicated HR structures at lower levels, shortages of skilled staff, weak performance planning systems and practices, insufficient budget and lack of a robust monitoring and evaluation system for forecasting and projection of workforce demand and supply. Following the BPR, more flexible staffing standards that were developed by the MoH and/or RHBs are used to deploy health workers to various health facilities. The number of active positions for health care workers is guided by perceived workload at local levels such as health centers or hospitals. However, the challenges with this approach include a variation in workload among the same category of health facilities, the fact that minimum staffing standards are not based on a realistic workload, but rather the current work load which is based on existing health worker shortages, and the fact that most woredas do not plan their workforce based on realistic workload, which in turn impacts the budget allocation for woreda health offices and health facilities.

2.2.2. Recruitment, Deployment, Motivation and Retention of Health Workers

Under the current decentralized system, RHBs and Woreda Health Offices have mandates to plan, identify and fill vacant positions. This gives the lower administrative units in each region a sense of ownership, and increases efficiency and accountability. It is critical to improve HR management systems, capacity and practices for efficient recruitment, deployment, motivation and retention of health workforce.

Most Woreda health office HR functions are managed under the Public Service and HR Development Pool System where a single structure coordinates HR issues of the health sector along with other sectors. As a result, HRH does not receive sufficient attention for planning, recruitment, deployment, motivation and retention. For optimum functioning, the woreda health office management requires negotiation and management capacity to request and secure financial resources to recruit an adequate number of health workers with the appropriate skills mix.

Though the MoH and RHBs are implementing various incentive packages for health professionals, the existing schemes are not consistently implemented in all regions and health facilities, and are not provided for all health workers, thus contributing to high attrition rates. Well-designed and systematic incentive schemes that include financial and non-financial packages need to be implemented for all health professional categories.

2.2.3. Performance Management

Performance management in the health sector is a collaborative effort of the Ministry of Public Service and HR Development and theMOH. The former develops performance management systems, implementation guidelines and standard operating procedures, while the MOH puts these into practice.

The Ethiopian Public Service has implemented several reform initiatives over the past few years, including decentralizing decision making to the woreda level, implementing business process reengineering (BPR), and introducing the Balanced Score Card (BSC). The focus of all these reform efforts is to improve performance management systems and practices that are responsive to civil servant needs, improve access to health services, empower communities and create a culture of measuring and rewarding performance. However, BSC is not fully implemented, and regions required additional support to do so. As a result, promotion decisions are still based on years of work experience rather than performance-based measures. This affects staff morale, performance and retention.

2.2.4. HRIS, Monitoring and Evaluation

Accurate and timely HRH information is essential to support HR planning and management. The MOH introduced HRIS in 2009 to facilitate routine data collection and management. However, the system has not been fully functional at various levels and has failed to produce comprehensive national HR information. Underlying factors affecting the functionality of the HRIS is a lack of dedicated HR structures and staff, lack of ownership, inadequate supplies of computers and HRIS software, limited capacity to manage HRIS functions and insufficient budget allocated for HRIS among others. Thus, there is a need to strengthen and scale up the HRIS to all levels of health administration, health facilities and training institutions.

2.3. HEALTH WORKFORCE EDUCATION AND TRAINING

2.3.1. Pre-service Education

The government of Ethiopia has invested in expansion of health professionals' education and training capacity to achieve the MDG and SDG health related goals including Universal Health Coverage. To facilitate the expansion, the government has determined the ratio of intake between natural science and social science to be 70/30. This decision favors the enrolment of more health science students. The overall expansion of public universities and colleges has contributed to a significant increase in the availability of most categories of health workers. Annual enrollment of health science students in public higher education institutions reached close to 23,000 by 2015/2016. An additional 16,000 health science students were under training in private higher education institutions in 2015/2016.

The number of universities that provide medical education has also increased from 5 in 2003 to 35 in 2016 (28 public and 7 private). Out of 37 public universities available to date, 34 have been providing four or more health science programs. Annual intake of medical students in public universities has increased by more than 20-fold from 152 in 2000 and to 3,537 in 2015/2016. There are more than 16,000medical students enrolled as of 2015/2016 (compared to its baseline level 1,462 in 2008/2009).

Similarly, teaching institutions providing midwifery training have increased from 23 in 2009 to 49 in 2015/2016.

Training of Integrated Emergency Surgical Officers (IESO), is one of the task shifting programs to address the shortages of surgeons and obstetricians. The program was started in 2009 in 3 universities and 10 affiliated

sites with an annual intake of 43 students, with the aim of providing them with training leading to MSc in Emergency Surgery. The program was scaled up in 2014 to 11 universities and 42 affiliated hospitals with an annual intake of 240 students. By the end of 2015, a total of 252 emergency officers had completed the training and been deployed to health facilities. To increase access to anesthesia services, the MoH trained and deployed 96 Level-V nurse anesthetists and 50 degree-level anesthesia graduates by 2013/2014[12]. In 2015/2016, the total number of anesthesia professionals had reached 875[13].

According to the WHO benchmark for Sub-Saharan Africa, the nurse to population ratio should be 1 per 5,000. Ethiopia has achieved a nurse to population ratio of 1 per 2,132 people by 2015/2016. To improve the quality of nursing services in hospitals and to strengthen motivation and retention of the diploma-level nursing workforce, nursing specialty training programs at a bachelors' degree level were started in 2014/2015 (these include neonatal, surgical, pediatrics, emergency and critical, and operation room nursing) .

The health extension program, the flagship health program of the country, has trained and deployed 42,336 health extension workers[14]since its inception in 2003. To strengthen pre-hospital emergency services throughout the country, an Emergency Medical Technicians (EMT) training program was started in and has trained 353. The plan is to train and deploy at least 3 EMTs per ambulance.

- These achievements are remarkable, and have resulted in successfully increasing the health workforce. Concerns, however, remain regarding the quality of training, as the rapid expansion has strained existing teaching and learning resources, and greatly increased the student to faculty ratio. To address these concerns, most higher education institutions have established a health educational quality assurance office, but the attention given to quality has to be improved. Quality assurance structures need to be cascaded to the lowest academic units including health science programs. Higher education institutions also need well-developed policies, procedures, guidelines and tools for internal quality assurance.

2.3.2. In-Service Training and Continuing Professional Development

- In-service training (IST) and continuing professional development (CPD) are important functions to support competence, motivation and retention, and improved performance of health professionals. If linked to health professionals' licensing, need-based IST and CPD can help to support career progression and staff motivation that in turn strengthen institutional capacity to deliver quality of health care.
- In this regard, the MOH issued a directive and guidelines to support standardization and institutionalization of IST in January 2014. Subsequently, a year later, 35 IST centers were established and equipped to facilitate the implementation of standardized IST. Challenges related to

[12] Ibid #12

[13] MoH (2016). Human Resources Development and Administration Directorate. Draft HR data for the country. Data was collected from September- November 2015 and compilation Completed in May 2016. Unpublished Report ***(see Annex B, Table B1.2 of this document for the details)***

[14] MoH (2015): Health and Health Related Indicators. Version 1. 2008 E.C.

standardization and institutionalization of IST include lack of a focal person to coordinate IST activities at the regional level, limited ownership for planning and budget allocation for IST activities at all levels, and limited capacity to enforce implementation according to the directive and guideline.

- Similarly, a CPD directive and implementation guideline was developed and approved – implementation of these documents are pending further review.

2.3.3. Quality Assurance and Regulation of Health Education

Accreditation

Accreditation is a mandatory requirement for higher education institutions in Ethiopia, and is managed by the Higher Education Relevance and Quality Agency (HERQA). Institutions and programs are subject to accreditation every three years.

Though HERQA is actively working to accredit private health education institutions, the agency is not yet fully engaged in regular accreditation of public health science education institutions.

Quality Audit

HERQA carries out institutional quality audits of all higher education institutions to ensure the appropriateness and effectiveness of each institution's approach to quality, its systems of accountability and its internal review mechanisms. HERQA has audited and produced reports for almost half of the health education institutions in the country. Internal quality assurance audits are expected to be carried out by the higher education institutions themselves. To guide this effort, HERQA, the MOH and universities developed national internal quality assurance implementation guideline and seven program level quality assurance standards for medicine, health officers, nursing, midwifery, medical laboratory, pharmacy and anesthesia.

Once the higher education institutions have completed the institutional or program level quality audit, they are expected to submit results to HERQA for reaccreditation. However, HERQA has not implemented regular reaccreditation for higher education institutions which has resulted in noncompliance to the outlined quality audit requirements by higher education institutions.

Certification and Licensing

Graduates who have successfully completed the TVET level training program have to take a National Qualifying Examination, which was developed based on Ethiopian occupational standard (EOS) and used as a criterion for licensing. Since 2011, the Certificate of Competence is provided to the graduates who successfully pass the National Qualifying Examination.

However, there was no similar certification program for graduates from the university level trainings. The MOH developed and piloted a National Licensing Examination for first degree graduates from higher institutions, to measure graduates' competence before professional registration and licensing. The exam was first administered in 2015 and a total of 10,000 graduates took the examination in 2015/2016. The result of national licensing examination is systematically analyzed to use as an input to improve quality of health

professionals' education. Current challenges with the National Licensing Examination are a lack of legal backing as directives and guideline is not finalized.

2.4. HEALTH WORKFORCE DENSITY AND DISTRIBUTION

2.4.1. Health Workforce Density

The study done in 2010 by the African Health Workforce Observatory (AHWO) found that the health worker density for all categories has been on the upward trend rising from 0.64 per 1000 population in 2003-2004 to 0.84 per 1000 population in 2008-2009. The upward trend of health workforce availability was maintained between 2010 and 2015 where the total stock of health care workers in 2015/2016 was150, 534 giving the health worker density of 1.63 for 1,000 populations [15](See Table B1.1 for details).

In 2015/2016, there were a total of 68,084 medical doctors, nurses and midwives in the country providing health care. This gives a density of 0.74 per 1000 population compared to the WHO bench mark of 2.3 doctors, nurses and midwives per 1000 population for Sub-Saharan Africa. The shortage of key health workers has persisted due to low training output and out-migration, particularly for physicians. Table 2.1 shows the stock in 2015/2016.

TABLE 2.1: HRH STOCK AND DENSITY

Health Workforce Density in 2015/2016		
Indicators	**Ethiopia Density 2016**	**International Bench Mark**
Total Health professionals per 1000 population (HWs density) (all categories)	1.63 per 1000	Not available
Doctors, Nurses and midwives	0.8 per 1000	2.3 per 1000 (WHO)
Physician to population ratio	1 per 17,720[16]	1 per 10, 000
Nurse to population ratio	1 per 2,132	1 per 5,000
Midwife to population ratio	1 per 8,200	1 per 5000

SOURCE: MOH, ROUTINE HRIS DATA JULY 2016.N.B. THE FIGURES SHOW PUBLIC SECTOR HEALTH WORKFORCE ONLY

2.4.2. Health Workforce Regional Distribution

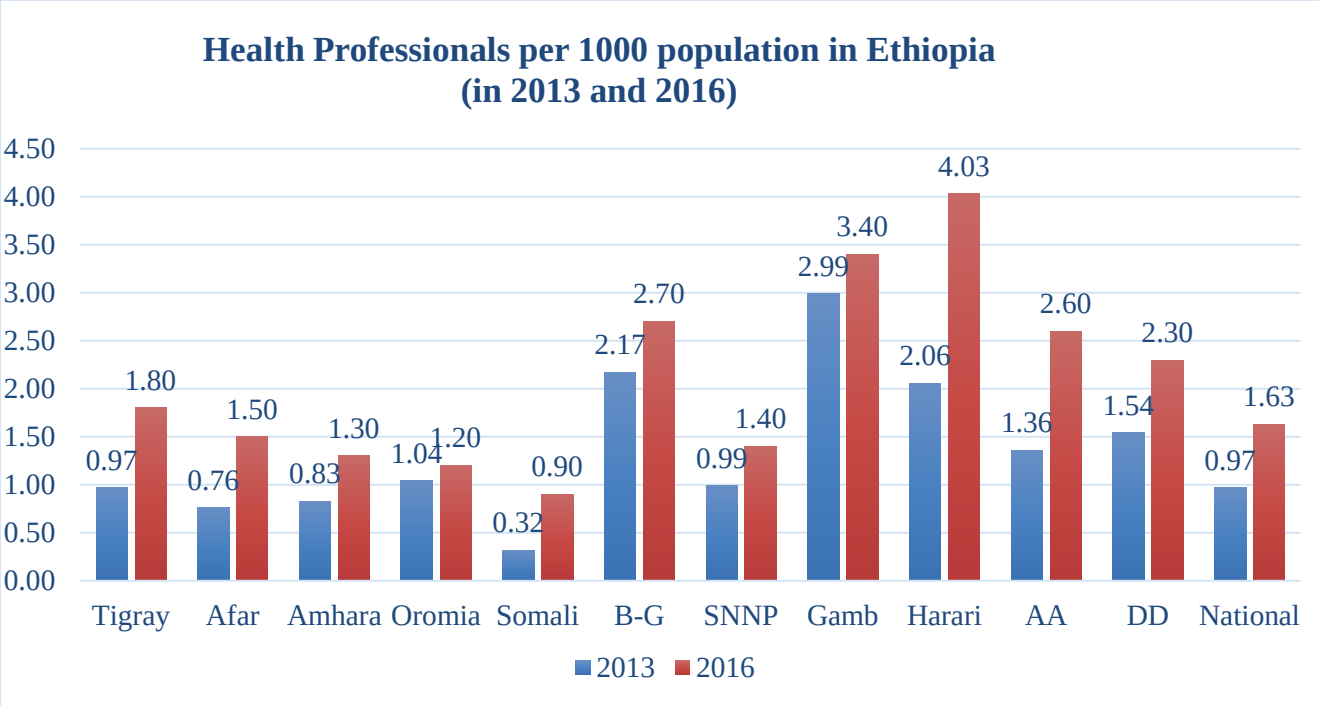
The distribution of available health professionals has been highly variable and unequal between urban and rural settings, between regions, and within regions. Some of the main reasons are accessibility of basic

15 MoH (2016). Human Resources Development and Administration Directorate. Draft HR data for the country. Data was collected from September- November 2015 and compilation Completed in May 2016. Unpublished Report ***(see Annex B, Table B1.2 of this document for the details)***

16 MoH (2015)> Annual Performance Report

services (road, electricity, telephone, water, education). Rural and hard-to-reach areas are particularly underserved.

In the last 5 years, there were initiatives to decrease inter and intra-region inequality of health worker distribution. These initiatives included expansion of health care professionals' training institutions (pre-service) in all regions, improved health workers recruitment and deployment based on local needs, compulsory service schemes, and improving financial and non-financial incentives for those who work in hard to reach areas. The current health workforce density and regional distribution is depicted in the figure below:



Sources: Strengthening Human Resources for Health (HRH) Project Baseline Survey (May, 2013) and Ministry of Health, HR Data (July 2016).

2.5. HRH POLICY AND LEGISLATION

2.5.1. Legislation on Planning of HRH

Ethiopia's legislative requirements for HR planning fall under Article 12 of the Civil Service Proclamation No.515/2007. According to this proclamation the MoH is responsible for preparing and implementing short, medium and long term HRH plans for the health sector.

2.5.2. Legislation on Professional Practice and Responsibility

Legislation on professional practice is critical for the regulation of health professionals as it defines the minimum requirements for registration and licensing, delineates scopes of practice, and sets standards for education, ethics, and competent practices. FMHACA has the mandate to regulate human resources for health is given as per proclamation No.661/2009. Regulation No. 76/2002 and some profession specific codes of ethics are also in place to guide professional practice. With leadership from the regulatory body of the MOH, FMHACA, an ethical code of conduct has recently been developed in collaboration with professional associations though it has not yet been approved.

2.5.3. Legislation on Education and Training

The Ministry of Education is mandated to assist in the development and implementation of higher education law. The Higher Education Proclamation No.650/2009 governs the existing legislation on the education of health professionals, which is applicable to all public and private institutions. This proclamation requires all public higher education institutions to be established by Regulation of the Council of Ministers or regional regulations. In addition, provisions governing accreditation of private institutions are found under the same law in Articles 74 and 75, which gives this power to HERQA.

TVET level health science training programs are accredited and regulated by national TVET proclamation No.391/2004 which gives mandate to TVET agency for the training programs regulation and standardization.

2.5.4. Legislation on HRH Management

Health professionals are civil servants governed by laws and regulations that govern civil service schemes in the country. The policy and legislative framework concerning HR management is currently addressed in the civil Service Proclamation number 515/2007, federal civil servants Disciplinary and Grievance Procedure No. 77/2002 and other directives and operational guidelines.

A career development qualification framework for each health professionals' category was developed by the MOH and approved by the Ministry of Public service and Human Resource development as indicated in the national health professional career structure guideline. However, the career structure has not been updated since 2012 nor is it inclusive of the newly emerged health professionals' categories.

2.5.5. Legislation on Research and Development of HRH

The existing legislation in Ethiopia concerning health related research is the Ethiopian Public Health Institute (EPHI) Establishment Regulation 4/1996. This Research Institute was established to conduct research on the causes and spread of diseases, nutrition, traditional medicines and medical practices and thereby inform activities to improve the health status of the country, and contribute to the development of health science and technology. In addition, the Higher Education Proclamation (No. 650/2009) states that one of the objectives of higher education institutions is to promote and conduct research consistent with the country's priority needs. However, Human Resource for Health related operational research that address the challenges in health workforce development and administration do not get the necessary attention.

2.6. PARTNERSHIPS FOR HRH

2.6.1 Private Health Science Training Institutions

The Government of Ethiopia recognizes the contribution of development partners and the private sector to the country's socio-economic development including achieving health goals for its population. The private sector, including both for profit and not-for profit, is an important player in the health and social welfare functions. The private sector in Ethiopia is involved in a broad range of functions which include training, service delivery and research. As a result, Public Private Partnerships (PPP) are taking root, though they are not yet institutionalized in a comprehensive manner. Important emerging trends worth noting include the questionable quality of the health professional training in the private schools and a growing migration of the skilled workforce from the public to the private sector. Anecdotal evidence suggests that health professionals join the private sector due to salaries and benefits that are higher than government remuneration packages. This creates a labor market opportunity for the health professionals while increasing the health workforce shortage in the public sector and affecting service delivery and management for the underserved.

The private sector is contributing to HRH development through pre-service education. A close working relationship between the MoH/RHBs and health facilities and the private sector training institutions is critical for successful training programs. Involving the private sector in health sector human resources planning is a critical first step to develop a strong framework and foundation for collaboration.

2.6.2 Health Professional Associations

Professional associations can play essential roles in HR development and management through pre-service education, in-service training and continued professional development, health professionals' ethics and regulation as well as workforce motivation and retention. In the past few years, Associations have been involved in health professionals' training standard development, curriculum designing and review, in-service training and professional regulation/ethical practices. However, the engagement of Associations in HRH development and regulation is not yet fully aligned with the roles and responsibilities MoH and the associations.

2.6.3 Development Partners

Development partners play a significant role in human resources development and management in the health sector in Ethiopia. They provide technical, financial and material support for pre-service education and in-service training of health professionals. However, this support is driven by disease-specific programs. As a result, they have not sufficiently addressed comprehensive HR development and management efforts in the

health sector. In addition, interagency collaboration at the MoH and RHBs have not fully leveraged the existing potential of development partners for HR in the sector.

2.7. STRATEGIC ISSUES

The following strategic issues were identified as priorities to be addressed:

- *Existence of weak leadership and governance for HRH at various levels of health system*: Health sector work requires not only technical skills and expertise directly responsible for sustaining health but also the skills needed in support systems and the linkages that facilitate the application of technical skills. The health sector has a critical gap in effective human resources managers who have the capacity and motivation to assess HRH needs, and develop relevant policies, strategies and operational guidelines to ensure health workforce planning, development, recruitment and equitable distribution, career development, motivation, retention and performance.
- *Poor quality of health workforce education and training:* the increased investment in expansion of health professional teaching institutions is already showing results in the exponential increase in numbers of graduating health professionals. However, the rapid expansion has resulted in challenges with ensuring the quality of health sciences education and training in both public and private training institutions.
- *Underdeveloped human resources management systems and practices*: The various civil service reforms have led to some positive results in the utilization, retention and performance of the available health workforce in improving coverage, equity in access, quality and efficiency of health services. Despite this progress, retaining skilled health workers with the appropriate skill mix in

remote areas remains a major challenge due to low salaries, and non-conducive working conditions and living environment.

- *Weak HR information system and evidence-driven HRH planning*: there is lack of comprehensive HR information to inform evidence-based management and policy decision making. Additionally, the capacity to analyze, disseminate and use available HR information is also not sufficiently developed at all levels. Documentation of best practices and human resources related research is also not well developed.
- *Insufficient financial resources for HR development and management:* There is limited budget for HR functions including salary and benefits, motivation and retention, performance management, and office supplies and equipment. There are also several challenges related to allocation of available budget for HR development functions such as in-service training and continued professional development within an institution.

- *Weak interagency coordination for HRH development and management:* In the recent years efforts have been made to increase the involvement of government ministries and agencies, RHBs, development partners, professional associations and private health professional training institutions in HRH policy and planning efforts. However, the level of alignment and harmonization is at its infancy. Competing interests within and between the stakeholders and development partners coupled with insufficient harmonization and alignment of the efforts has increased fragmentation and duplication of efforts in health workforce education, training and distribution.
- *Weak HRH regulatory capacity:* A comprehensive health workforce regulation system that includes licensure, accreditation and certification, development of standards and scope of practice is mandatory to ensure public protection and efficient use of the health workforce. HERQA and FMHACA were established

CHAPTER 3:

STRATEGIC DIRECTION

The strategic direction of this plan has been guided by the Ministry of Health HRH vision, goal, objectives and guiding principles outlined below.

3.1. VISION, GOAL AND OBJECTIVES

Vision

The vision of HRH is to have an adequate number of well qualified, committed, compassionate, respectful and caring health workers contributing to the health sector vision of Ethiopia.

Strategic Goal

The Strategic goal of the HRH SP is to ensure availability of an adequate number of well qualified health professionals with an appropriate mix of skills; equitably distributed, motivated, retained and perform well to achieve universal access to health care in Ethiopia.

Strategic Objectives

Strategic Outcomes	Strategic objectives
HRH regulation, planning and partnership strengthened	• Develop and implement appropriate HRH standards, guidelines and legislative frameworks • Establish a comprehensive Human Resources Information System (HRIS) and strengthen data use for decision-making • Strengthen HRH Planning at all levels • Create a gender responsive workforce • Engage with diverse partners and stakeholders on national HRH dialogue and actions
Health workforce education and training capacity and regulation improved	• Improve quality of pre-service education and training for the health workforce • Strengthen in-service training and continuing professional development for the health workforce • Strengthen accreditation, licensing and regulation of training institutions and health professionals
Leadership, governance and HRM capacity and practices are strengthened	• Improve HRH leadership and governance structures and capacity at all levels • Strengthen HRM capacity and practices at all levels
Availability, retention and performance of the health workforce optimized	• Improve health worker recruitment and deployment at all levels • Reduce inequity in geographic distribution and skill mix of health care workers • Enhance staff motivation and retention • Improve health workforce performance and productivity

3.2. GUIDING PRINCIPLES

This strategic plan is guided by the following principles:

Principle	Explanation
Country's commitment	To support actions that contribute to a sustainable health workforce
System linkage	National HRH strategies should be harmonized with the relevant components of the health system and primary health care principles
Donor alignment	Donor support should be coordinated and aligned with country HRH plans
Equity, accessibility and accountability	To ensure that all people, in all places, have access to skilled health workers who are equipped, motivated and supported
Results-oriented	HRH strategies and actions aimed at achieving measurable outcomes
Multispectral engagement	Involve all sectors and stakeholders including the community to build the health workforce

CHAPTER 4:

STRATEGIC PLAN OUTCOMES, OBJECTIVES AND ACTIONS

OUTCOME 1: HRH LEGISLATION, PLANNING AND PARTNERSHIP STRENGTHENED

This outcome addresses interventions aimed at strengthening HRH legislation and planning at the federal and regional level so as to improve the HRH profile in respect to staffing, skills, distribution, retention and performance. These interventions fall under the following five Strategic Objectives:

SO 1.1: Develop and implement appropriate HRH standards, guidelines and Legislative Frameworks

SO 1.2: Establish a comprehensive Human Resources Information System (HRIS) and strengthen data use for decision-making

SO 1.3: Strengthen HRH Planning at all Levels

SO 1.4: Create a Gender Responsive and Healthy workforce

SO1.5: Engage diverse partners in National HRH dialogue and actions

SO 1.1: Develop and Implement Appropriate HRH Standards, Guidelines and Legislative Frameworks

The following strategic Actions will be undertaken to support Strategic Objective 1.1

Strategic actions

3.2.1. Develop and implement across-the-board and profession-specific laws/code of ethics for all health professions.

3.2.2. Apply relevant legislation to improve quality of pre-service education and in-service training.

3.2.3. Develop legislation and guidelines to support confidentiality and appropriate use of personal information in HRH databases

3.2.4. Develop memorandums of understanding/guidelines on ethical recruitment and employment of health professionals with major recipients countries

3.2.5. Improve availability and utilization of various HR legislation, procedures and guidelines

SO 1.2: Strengthen Human Resources Information system (HRIS) and Data use for decision-making

A robust system to collect, organize and disseminate HR data from diverse geographical locations needs to be put in place to generate current HRH information, and the capacity and motivation of health leaders and managers should be developed to enhance evidence-based decision making. The following strategic actions will support the establishment of a comprehensive HRIS:

Strategic Actions

1.2.1. Conduct functional assessment of existing HR information systems and develop plan of action

1.2.2. Strengthen human resources information systems (HRIS) for improved collection, storage, analysis and use of health workers data.

1.2.3. Establish and/or strengthen national, sub regional and regional health workforce observatories.

1.2.4. Improve the infrastructure and increase availability of various equipment for HRIS

1.2.5. Assign staff to manage HRIS at various levels of the health system administration

1.2.6. Train system managers and HR staff to use the HRIS

1.2.7. Integrate the HRIS into the MOH's data-warehouse (or existing HMIS)

1.2.8. Encourage use of HRIS for decision making by availing customized reports to stakeholders

1.2.9. Produce policy briefs on success stories in evidence-based HRH problem solving

1.2.10. Increase investment in HRH research capacity and disseminate results to all stakeholders to identify health workforce requirements, trends and the effectiveness of interventions.

1.2.11. Explore, document and disseminate HRH related best practices at global, national and regional levels

1.2.12. Develop indicators for monitoring and evaluation of the health workforce within national health services.

SO1.3: Strengthen HRH Planning at all Levels

The HRH planning capacity at the federal, regional and facility level has been very limited. This plan proposes the following strategic actions to improve HRH planning.

Strategic Actions

1.3.1. Strengthen the planning capacity of the MoH and RHBs through knowledge and skill development

1.3.2. Develop annual HRH operational plans at federal and regional levels based on the National HRH Strategic Plan

1.3.3. Institute an integrated monitoring and evaluation system that involves all relevant stakeholders.

1.3.4. Review and regularly update the Federal HRH strategic plan

1.3.5. Forge partnerships with government agencies, development partners and other stakeholders to mobilize resources to support the development, implementation and review of HRH plans

1.3.6. Train facility managers and heads on methods of determining staffing needs such as Workload Indicator for Staffing Need (WISN)

1.3.7. Update the national HRH requirement every five years using sound HRH projection methods

SO 1.4: Create a Gender Responsive and Healthy workforce

It is imperative that Ethiopia invests in creating a gender balanced, responsive and healthy workforce to attract and retain high performing health workers. This strategic objective will be supported by the following strategic actions:

Strategic Actions

1.4.1. Build the capacity of health mangers and policy makers on gender analysis and integration as an essential component of HRH program design, implementation and review
1.4.2. Create gender units/departments and recruit gender officers/focal persons at regional, health facility levels as well as in training institutions
1.4.3. Provide support to public and private health professionals' training institutions
1.4.4. Set gender equity indicators and targets, particularly for higher/senior level (leadership) positions and training institutions
1.4.5. Introduce mechanisms that support gender equity including affirmative action
1.4.6. Introduce comprehensive occupational safety and health (OSH) programs including structures and staffing
1.4.7. Ensure all health workers have access to HIV and wellness workplace programs.

SO 1.5: Engage diverse partners in National HRH Dialogue and actions

The development and implementation of the HRH Strategic plan is a collaborative endeavor that involves different stakeholders. Actors other than the public sector also play important roles in shaping the HRH agenda of the country. In Ethiopia, there are a number of private institutions that provide training of health workers and also provide health services. The following strategic actions will support the effective engagement of the private sector in the planning and management of the health workforce.

Strategic Actions

1.5.1. Develop the capacity of the MOH to track, negotiate, align, harmonize and coordinate stakeholder/partner activities
1.5.2. Expand and strengthen HRH coordination mechanisms for all relevant stakeholders and partners in order to facilitate policy dialogue on the HRH agenda at national, regional and local levels
1.5.3. Develop and/or strengthen appropriate public/private partnerships to ensure coherence of and support for HRH plans
1.5.4. Facilitate South-South and North-South technical cooperation in HRH
1.5.5. Commit to predictable long-term aid flow to HRH in keeping with aid effectiveness agendas, and invest in priority areas such as the production and employment of health workers to ensure sustainable impact

1.5.6. Include diverse partners (health professional associations, NGOs, private, donors) in the HRH Working Groups at the Federal and regional levels
1.5.7. Develop a common code of conduct governing the mobility of health workers between public and private sector institutions
1.5.8. Introduce approaches for resource sharing between public and private institutions as it relates to HRH (Service delivery and training)
1.5.9. Encourage the private sector to invest in the health sector and institute an incentive mechanism to attract private health providers to disadvantaged areas or population groups

OUTCOME 2: HEALTH WORKFORCE EDUCATION AND TRAINING CAPACITY AND REGULATION IMPROVED

This outcome addresses the issue of production of an adequate number of health workers with the right skill mix, by creating a system for ensuring competency and continuous quality improvement of the health workforce. It also addressing the issue of ensuring that after deployment, health workers have access to quality and relevant in-service training and continuous professional development. Outcome 2 will be achieved through the following strategic objectives:

SO 2.1: Strengthen Pre-Service education for the health workforce
SO 2.2: Strengthen In-Service Training and Continuing Professional Development for the health workforce
SO 2.3: Strengthen accreditation and regulation of training institutions and health professionals

SO 2.1: Strengthen Pre-Service Education for Health Workforce

The aim of this strategic objective is to increase the output, quality and relevance of priority cadres and hence support improved staffing levels and increase the health worker to population density towards WHO recommendations of 2.3 per 1000. The specific strategic actions are:

Strategic Actions

2.1.1 Support a shift to evidence-based curriculum and education models including but not limited to outcomes-based, integrated, community-oriented, and active learning.
2.1.2 Reform existing undergraduate and post-graduate training programs into competency-based trainings
2.1.3 Establish a system to nurture public service ethics, professional values and social accountability in health science students to create compassionate, respectful, and caring workforce.
2.1.4 Build the capacity of problem-based innovative medical education programs to continue training physicians from a pool of bachelor of science holders
2.1.5 Develop and implement strategies to increase annual health professionals enrolment and output for health cadres in critically short supply in line with MoH projections
2.1.6 Produce appropriate professionals for Emergency Medical Services consisting of Physician, Emergency and Critical Care Nurses, Emergency Surgical Officer and Emergency Medical Technicians
2.1.7 Expand clinical specialty and subspecialty training programs and substantially increase the enrolment capacity of training institutions
2.1.8 Produce family health teams to transform the household services of the Health Extension Program (family physician, family health nurse, family midwife and other professionals)

2.1.9 Introduce and scale-up nurse specialty training programs
2.1.10 Establish centres of excellence for pre-service training for various professional areas in all universities
2.1.11 Provide support for quality audits for all existing pre-service training programs (in public and private institutions) to develop and implement evidence-based quality improvement interventions
2.1.12 Establish Health Science Education Development Centers in all public and private higher education institutions with health programs to lead and coordinate internal quality assurance
2.1.13 Establish networking of practicum sites (public, private and affiliates) for quality health professional training
2.1.14 Enhance capacity of higher education leadership to provide sustained support for health professionals' training
2.1.15 Increase the number and capacity of faculty for improved quality of health professionals' training
2.1.16 Strengthen the infrastructure for effective teaching by establishing skills labs, availing simulators, providing information and communications technology (ICT) support, etc.
2.1.17 Increase awareness and skills of health care professional graduates in gender mainstreaming in the health sector
2.1.18 Establish Alumni offices to support teaching-learning programs
2.1.19 Improve national and international networking and collaboration among the pre-service education institutions
2.1.20 Establish platforms for collaborations among universities and regional health science colleges

SO 2.2: Strengthen In-Service Training and Continuing Professional Development for Health Workforce

To support Strategic Objective 2.2, the following strategic actions are proposed:

Strategic actions

2.2.1. Develop need-based annual IST plans at national, regional, woreda, health facility and health training institutions.
2.2.2. Ensure standardization and institutionalization of in-service trainings.
2.2.3. Support the establishment of in-service training centres with appropriate geographical coverage.
2.2.4. Establish ICT platforms to support delivery and management of in-service trainings.
2.2.5. Implement continuing professional development (CPD) programs linked to career advancement and re-licensure to practice
2.2.6. Engage professional associations, academia and the private sector in providing CPD.
2.2.7. Create a system for regular communication between pre-service and in-service training programs
2.2.8. Establish and maintain a functional IST database that interfaces with HRIS at all levels

SO2.3: Strengthen accreditation and regulation of education and training institutions and health professionals

Health workers are expected to provide quality health care services to the community. Their competency and compliance will be ensured through strengthened accreditation and licensing systems and practices. Accreditation will be applied to public and private pre-service training institutions, in-service training centers, practicum sites, training programs and in-service training materials. Graduates from the accredited institutions and training programs will sit for National Licensing Examinations, and get registered and licensed to practice by meeting required professional standards. The strategic actions are**:**

Strategic Actions

2.3.1 Establish and/or strengthen the capacity of national, sub regional and regional regulatory bodies to harmonize practices and regulation between professions and across countries.
2.3.2 Promote the establishment of professional and regulatory bodies to support enforcement of laws and regulations where they do not exist.
2.3.3 Strengthen the capacities of regulatory bodies to perform their roles of HRH accreditation and regulation at national, sub regional and regional levels.
2.3.4 Support enforcement of HERQA accreditation and quality standards at all public and private health sciences educational institutions
2.3.5 Conduct quality audits of existing pre-service training programs to develop and implement evidence-based quality improvement interventions
2.3.6 Define and regularly update the scopes of practice for all health professionals and monitor compliance
2.3.7 Establish and enforce licensing examination to measure competence of new graduates for safe and effective practice prior to entry to the health workforce
2.3.8 Establish database for accreditation of CPD providers, in-service training and National Licensing Examination Centres.
2.3.9 Strengthen capacity of the regulatory agency for effective regulation of health professionals' practices
2.3.10 Strengthen the capacities of national and regional professional associations such as public health, medical, dental, pharmaceutical, nursing and midwifery associations.
2.3.11 Enforce further the regulation that seeks to minimize the adverse impact of uncontrolled commercialization of health services delivery.

OUTCOME 3: HRH LEADERSHIP, GOVERNANCE AND HUMAN RESOURCES MANAGEMENT CAPACITY AND PRACTICES ARE STRENGTHENED

This outcome will be achieved through the implementation of the following strategic objectives:

SO 3.1: Improve HRH leadership and governance structure and capacity at all levels

SO 3.2: Strengthen HRM Function and Practices at MOH and Other levels

SO 3.1: Improve HRH leadership and governance structure and capacity at all levels

This strategic objective aims to harness all that is required to make available appropriately skilled and high-performing health workers in the right quantity where they are needed. This objective is required to increase the domestic investment for sustainable financing of national health workforce plans including recruitment, and to strengthen HRH management and leadership capacities. Strategic actions to achieve improved governance and leadership are as follows:

Strategic Actions

3.1.1. Conduct assessments and identify gaps in leadership and governance for HRH at all levels
3.1.2. Develop leadership and governance structures at decentralized health levels
3.1.3. Strengthen institutional leadership and governance capacities at all levels[17]
3.1.4. Develop, regularly update and implement comprehensive national HRH strategic plans reflecting the road map in the context of broader health plans and the macroeconomic situation in the country
3.1.5. Increase domestic (public and private) investment in health workforce development and administration
3.1.6. Improve effectiveness and efficient use of health-related resources to progress towards sufficient and sustainable financing for HRH at national, regional and local levels
3.1.7. Ensure financial sustainability for HRH in collaboration with other relevant ministries, partners and stakeholders including the community.
3.1.8. Carry out advocacy with and engage political leaders and relevant stakeholders in HRH policy and legislation processes at country, regional and sub-regional levels

SO 3.2: Strengthen the HRM system and practices at MOH and Other levels

This strategic objective aims at creating a health workplace in which staff are supported to function optimally. This objective will be achieved through the following strategic actions:

Strategic Actions

3.2.1. Professionalize the human resources development and administration function at all levels
3.2.2. Provide continuous HRM training to HR staff and line managers at all levels
3.2.3. Conduct periodic job analysis in order to regularly update HRH categories
3.2.4. Review and improve the implementation of a performance-based evaluation system

[17]Including the HRH units at Ministry of Health, RHBs, Woredas and health facilities, regulatory agencies and other sectors responsible for employment and transfer of health workers.

OUTCOME 4: UTILIZATION, RETENTION AND PERFORMANCE OF AVAILABLE HEALTH WORKFORCE OPTIMIZED

This outcome will be achieved through the following strategic objectives:

SO 4.1: Improve health worker recruitment and deployment at all levels

SO 4.2: Reduce inequity in geographic distribution and skill mix of health care workers

SO 4.3: Enhance staff motivation and retention

SO 4.4: Enhance performance and productivity

SO 4.1: Improve Health Workers Recruitment and Deployment

It is expected that staffing requirements will be reviewed at appropriate intervals to reflect any major changes in service standards, disease burden, workload, public expectation or other factors that have significant impact on the health care delivery system. This HRH strategic plan aims at increasing the health professionals' density from the existing level of 1.5 to 2.3 per 1,000 populations by 2025. This will be achieved through the implementation of the following strategic actions.

Strategic Actions

4.1.1. Optimize health workforce deployment to address equity of distribution and enhance performance
4.1.2. Strengthen orientation programs for newly recruited staff to provide them with clear roles and expectations, guidelines, adequate work processes, and a suitable work environment.
4.1.3. Develop tools to support effective selection and recruitment including electronic recruitment (e-recruitment)
4.1.4. Strengthen recruitment for scarce health professionals from outside sources such as the diaspora, volunteers and retirees.

SO 4.2: Reduce inequity in geographic distribution and skills mix of health Workers

Health workforce geographic inequity and skills mix will be addressed through the following strategic actions.

Strategic Actions

4.2.1. Implement special support initiatives and enroll students from disadvantaged communities and remote areas.
4.2.2. Build capacity of RHBS and woredas to identify locally appropriate factors that affect workforce attraction and retention, develop strategies, and plan to recruit and deploy health professionals in hard-to-reach geographic areas
4.2.3. Develop tailored remuneration and incentive packages in hard-to-reach areas (link with motivation and retention)
4.2.4. Enforcing minimum compulsory public service to address shortages of health professionals and inequity in geographic distribution

4.2.5. Develop a comprehensive strategy to raise awareness, change attitudes and increase commitment of the health workforce to serve communities
4.2.6. Regularly review the needs and develop strategies/actions for task shifting to address critical shortage of health professionals

SO 4.3: Enhance staff motivation and retention

Health workforce motivation and retention will be enhanced by implementing the following strategic actions:

Strategic Actions:

4.3.1 Design appropriate financial and non-financial motivation and retention incentives at all levels.
4.3.2 Create conducive work climate to enhance workforce retention and productivity
4.3.3 Increase opportunities for professional development and promotion
4.3.4 Undertake regular review of career structures for all health professionals
4.3.5 Conduct regular motivation and retention studies to assess the extent of the retention problem and design motivation and retention mechanisms

SO 4.4: Enhance performance and productivity of health workforce

A competent and productive health workforce is very important to improve health outcomes of the Ethiopian population. Health workers need to be trained and supported to plan for and meet performance expectations. The strengthening of a system for participatory performance assessment, planning and improvement is a critical component of this strategic Objective. The following strategic actions will be implemented to enhance health workforce performance and productivity.

Strategic Actions:

4.4.1. Strengthen regular performance planning, monitoring and improvement programs for health care workers at all levels
4.4.2. Conduct comprehensive work climate assessments and develop improvement programs at all levels of health system
4.4.3. Conduct regular supportive supervision, mentorship and regular feedback at all levels
4.4.4. Strengthen the link between health professionals' performance, professional development and career promotion
4.4.5. Conduct regular productivity surveys for evidence-based decisions

CHAPTER 5:

IMPLEMENTING THE HRH STRATEGIC PLAN

5.1. THE IMPLEMENTATION APPROACHES

5.1.1. Coordination Mechanisms

The implementation of this HRH SP will require the support of multiple stakeholders at all levels. It is therefore critical to establish coordinating mechanisms such as HRH working groups at the national and sub-national levels.

The MOH will play an overall leadership role at the national level and support the development of regional and facility level HRH strategic plans. Furthermore, detailed annual HRH work plans will be developed and periodic review of the implementation of the HRH strategic plan will be conducted in order to continuously refine the HRH needs of the health sector.

Key stakeholders involved in the implementation of HRH SP include:

- Ministry of Health
- Ministry of Education (MOE)
- HERQA
- Federal and regional TVET FMHACA
- Ethiopian Public Health Research Institute
- Ministry of Public Service and HR Development
- Ministry of Finance and Economic Cooperation
- Health Sciences Education and Training Institutions
- Regional Health Bureaus/Woreda Health Offices/Health Facilities
- Health Professional Associations
- Private Sector
- Development Partners

The implementation framework and key roles of each stakeholder is shown in the table below

Implementing Sector/Organization	Roles and Responsibilities
MoH, FMHACA	• Provide overall leadership in the implementation of the SP • Support regions in the development of their HRH plans • Oversee monitoring and evaluation of the plan • Registration, licensing and regulation of health facilities and professionals • Provide support in HRH Operational planning • Participate in performance management
Ministry of Public Service and HR Development	• Job classification, grading and salary scale • Regular review, development and dissemination of HRM legislation, operational guidelines and procedure manuals • Strengthening performance management and reward for staff motivation and productivity • Review and approve HR staffing standards; recruitment and deployment of health workforce
MoE, Universities and HERQA	• Develop and implement educational and training policies and strategies for health workforce development • Provide Pre-service education and training • Accreditation of Health Sciences Education Institutions and Programs • Conduct quality audits of Health Training Institutions and recommend improvement interventions
Regional Health Bureaus and Woreda Health Offices	• Recruitment and management of staff • Licensing of lower level health workers
Health Facilities	• Day-to-day management of staff
Health Professional associations	• Provide accredited CPD courses and in-service training • Participate in the development of curricula, quality improvement standards; accreditation and quality audit visits; and development and implementation of National Licensing Examinations • Development and enforcement of professional codes of conduct • Promotion of compassionate, respectful and caring professional practices
Private Sector	• Training of health workers • Recruitment and management of health workers

5.2. IMPLEMENTATION MATRIX AND TIMELINES

The table below provides the implementation Matrix of the HRH Strategic Plan.

OUTCOME 1: HRH LEGISLATION, INFORMATION, PLANNING AND PARTNERSHIP STRENGTHENED AT ALL LEVELS

Strategic Objective	Strategic Actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
SO 1.1: Develop and implement an appropriate HRH standards, guidelines and legislative frameworks	1.1.1 Develop and implement across-the-board and profession-specific laws/code of ethics for all health profession					
	1.1.2 Apply relevant legislation to improve quality of pre-service education and in-service training.					
	1.1.3 Develop legislation and guidelines to support confidentiality and appropriate use of personal information in HRH databases					
	1.1.4 Develop memorandums of understanding/guidelines on ethical recruitment and employment of health professionals with major recipient countries/organizations					
	1.1.5 Improve availability and utilization of various HR legislation, procedures and guidelines					
SO1.2. Establish Comprehensive, HRIS and Strengthen Data use for decision-making	1.2.1. Conduct functional assessment of existing HR information systems and develop plan of action					
	1.2.2. Strengthen human resources information systems (HRIS) for improved collection, storage, analysis and use of health workers data					
	1.2.3. Establish and/or strengthen national, sub regional and regional health workforce observatories.					

Strategic Objective	Strategic Actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	1.2.4. Improve the infrastructure and increase availability of various equipment for HRIS					
	1.2.5. Assign staff to manage HRIS at various levels of health system administration					
	1.2.6. Train system managers and HR staff to use the HRIS					
	1.2.7. Integrate the HRIS into the MOH's data-warehouse (or existing HMIS)					
	1.2.8. Encourage use of HRIS for decision making by availing customized reports to stakeholders					
	1.2.9. Produce policy briefs on success stories in evidence-based HRH problem solving.					
	1.2.10. Increase investment in HRH research capacity and disseminate results to all stakeholders to identify health workforce requirements, trends and the effectiveness of interventions					
	1.2.11. Explore, document and disseminate HRH related best practices at global, national and regional levels					
	1.2.12. Develop indicators for monitoring and evaluation of the health workforce within national health services.					
SO 1.3: Strengthen HRH Planning at all Levels	1.2.13. Strengthen the planning capacity of the MoH and RHBs through knowledge and skill development					
	1.2.14. Develop annual HRH operational plans at federal and regional levels based on the National					

Strategic Objective	Strategic Actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	HRH Strategic Plan					
	1.2.15. Institute an integrated monitoring and evaluation system that involves all relevant stakeholders					
	1.3.1. Review and regularly update the Federal HRH strategic plan					
	1.3.2. Forge partnerships with government agencies, development partners and other stakeholders to mobilize resources to support the development, implementation and review of HRH plans					
	1.3.3. Train facility managers and heads on methods of determining staffing needs such as Workload Indicator for Staffing Need (WISN)					
	1.3.4. Update the national HRH requirement every five years using sound HRH projection methods					
SO 1.4: Create a Gender Responsive and Healthy workforce	1.4.1. Build the capacity of health mangers and policy makers on gender analysis and integration as an essential component of HRH program design, implementation and review					
	1.4.2. Create a gender unit/department and recruit gender officers/focal persons at regional, health facility levels as well as in training institutions					
	1.4.3. Provide support to public and private health professionals' training institution					

Strategic Objective	Strategic Actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	1.4.4. Set gender equity indicators and targets, particularly for leadership positions and training institutions					
	1.4.5. Introduce mechanisms that support gender equity including affirmative action					
	1.4.6. Introduce comprehensive occupational safety and health (OSH) programs including structures and staffing					
	1.4.7. Ensure all health workers have access to HIV and wellness workplace programs.					
SO 1.5: Engage in diverse partners for national HRH dialogue and actions	1.5.1. Develop the capacity of ministries of health to track, negotiate, align, harmonize and coordinate stakeholder/partner activities.					
	1.5.2. Expand and strengthen HRH coordination mechanisms for all relevant stakeholders and partners in order to facilitate policy dialogue on the HRH agenda at national, regional and local levels					
	1.5.3. Develop and/or strengthen appropriate public/private partnerships to ensure coherence of and support for HRH plans					
	1.5.4. Facilitate South-South and North-South technical cooperation in HRH.					
	1.5.5. Commit to predictable long-term aid flow to HRH in keeping with aid effectiveness agendas, and invest in priority areas such as the production and employment of health workers to ensure sustainable impact.					

Strategic Objective	Strategic Actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	1.5.6. Include diverse partners (NGOs, private, donors) in the HRH Working Groups at the Federal and regional levels					
	1.5.7. Develop a common code of conduct governing the mobility of health workers between public and private sector institutions.					
	1.5.8. Introduce approaches for resource sharing between public and private institutions as relates to HRH (Service delivery and training)					
	1.5.9. Encourage the private sector to invest in the health sector and institute an incentive mechanism to attract private health providers to disadvantaged areas or population groups.					

OUTCOME 2: HEALTH WORKFORCE EDUCATION AND TRAINING CAPACITY AND REGULATION IMPROVED

Strategic Objective	Strategic actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
SO 2.1: Strengthen Pre-Service training of the health workforce	**2.1.1** Support shift to evidence-based curriculum and education models including but not limited to outcomes-based, integrated, community-oriented, and active learning					
	2.1.2 Reform existing undergraduate and post-graduate training programs into competency-based trainings					
	2.1.3 Establish a system to nurture public service ethics, professional values and social accountability in health science students to create compassionate, respectful, and caring workforce					
	2.1.4 Build the capacity of problem-based innovative medical education programs to continue training physicians from a pool of BSC holders					
	2.1.5 Develop and implement strategies to increase annual health professionals enrolment and output for health cadres in critically short supply in line with MoH projections					
	2.1.6 Produce appropriate professionals for Emergency Medical Services consisting of Physician, Emergency and Critical Care Nurses, Emergency Surgical Officer and Emergency Medical Technicians					
	2.1.7 Expand clinical specialty and subspecialty training programs and substantially increase the enrolment capacity of training institutions					

Strategic Objective	Strategic actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	2.1.8 Produce family health team to transform household services as part of the Health Extension Program (family physician, family health nurse, family midwife and other professionals					
	2.1.9 Introduce and scale-up nurse specialty training programs					
	2.1.10 Establish centres of excellence for pre-service training for various professional areas in all universities					
	2.1.11 Provide support for quality audits for all existing pre-service training programs (in public and private institutions) to develop and implement evidence-based quality improvement intervention					
	2.1.12 Establish Health Science Education Development Center in all public and private higher education institutions with health programs to lead and coordinate internal quality assurance					
	2.1.13 Establish networking of practicum sites (public, private and affiliates) for quality health professional training					
	2.1.14 Enhance capacity of higher education leadership to provide sustained support for health professionals' training					
	2.1.15 Improve the number and build capacity of faculty for improved quality of health professionals' training					
	2.1.16 Strengthen the infrastructure for effective teaching by establishing skills labs, availing simulators, ICT etc.					

Strategic Objective	Strategic actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	2.1.17 Increase awareness and skills of health care professional graduates in gender mainstreaming in health sector					
	2.1.18 Establish Alumni offices to support teaching-learning programs					
	2.1.19 Improve national and international networking and collaboration among the pre-service education institutions					
	2.1.20 Establish platforms for collaboration between universities and regional health science colleges					
SO 2.2:Strengthen in-service training and continued professional development for health workforce	**2.2.1** Develop need-based annual IST plans at national, regional, woreda, health facility and health training institutions					
	2.2.2 Ensure standardization and institutionalization of in-service trainings					
	2.2.3 Support the establishment of in-service training centres with appropriate geographical coverage.					
	2.2.4 Establish ICT platforms to support delivery and management of in-service trainings.					
	2.2.5 Implement continuing professional development (CPD) programs linked to career advancement and re-licensure to practice					

Strategic Objective	Strategic actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	2.2.6 Engage professional associations, academia and the private sector in providing CPD.					
	2.2.7 Create a system for regular communication between pre-service and in-service training programs					
	2.2.8 Establish and maintain a functional IST database/interface with HRIS/ at all levels					
SO 2.3: Expand the Capacity of Health Training Facilities	**2.3.1** Establish and/or strengthen the capacity of national, sub regional and regional regulatory bodies to harmonize practices and regulation between professions and across countries.					
	2.3.2 Promote the establishment of professional and regulatory bodies to support enforcement of laws and regulations where they do not exist.					
	2.3.3 Strengthen the capacities of regulatory bodies to perform their roles of HRH accreditation and regulation at national, sub regional and regional levels					
	2.3.4 Support enforcement of HERQA accreditation and quality standards at all public and private health sciences educational institutions					
	2.3.5 Conduct quality audits of existing pre-service training programs to develop and implement evidence-based quality improvement interventions					

Strategic Objective	Strategic actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	2.3.6 Define and regularly update the scopes of practice for all health professionals and monitor compliance					
	2.3.7 Establish and enforce licensing examination to measure competence of new graduates for safe and effective practice prior to entry to the health workforce					
	2.3.8 Establish database for accreditation of CPD providers, in-service training and National Licensing Examination Centres.					
	2.3.9 Strengthen capacity of the regulatory agency for effective regulation of health professionals' practices					
	2.3.10 Strengthen the capacities of national and regional professional associations such as public health, medical, dental, pharmaceutical, nursing and midwifery associations					
	2.3.11 Enforce further the regulation that seeks to minimize the adverse impact of uncontrolled commercialization of health services delivery.					

OUTCOME 3: HRH LEADERSHIP, GOVERNANCE AND MANAGEMENT CAPACITY AND PRACTICES ARE STRENGTHENED

Strategic Objective	Strategic actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
SO 3.1: Improve HRH leadership and governance structure and capacity at all levels	3.1.1. Conduct assessments and identify gaps in leadership and governance for HRH at all levels					
	3.1.2. Develop leadership and governance structures at decentralized health levels					
	3.1.3. Strengthen institutional leadership and governance capacities at all levels					
	3.1.4. Develop, regularly update and implement comprehensive national HRH strategic plans reflecting the road map in the context of broader health plans and the macroeconomic situation					
	3.1.5. Increase domestic (public and private) investment in health workforce development and administration					
	3.1.6. Improve effectiveness and efficient use of health-related resources to progress towards sufficient and sustainable financing for HRH at national, regional and local levels					
	3.1.7. Ensure financial sustainability for HRH in collaboration with other relevant ministries, partners and stakeholders including the community.					

	3.1.8.	Carry out advocacy with and engage top political leaders and relevant stakeholders in HRH policy and legislation processes at country, regional and sub-regional levels					
SO 3.2: Strengthen the HRM functions at all levels	3.3.1.	Professionalize the human resources development and administration function at all levels					
	3.3.2.	Provide need-based HRM training to HR staff and line managers at all levels					
	3.3.3.	Conduct periodic job analysis in order to regularly update HRH categories					
	3.3.4.	Review and improve the implementation of a performance-based evaluation system					

OUTCOME 4: UTILIZATION, RETENTION AND PERFORMANCE OF THE AVAILABLE HEALTH WORKFORCE OPTIMIZED.

Strategic Objective	Strategic Actions		Implementation Timeline				
			2016/17	2018/19	2020/21	2022/23	2024/25
SO 4.1: Improve Health Worker Recruitment and Deployment for Higher Staffing Levels	**4.1.1.**	Optimize health workforce deployment to address equity of distribution and enhance performance					
	4.1.2.	Strengthen orientation programs for newly recruited staff to provide them with clear roles and expectations, guidelines, adequate work processes, and a suitable work environment					
	4.1.3.	Develop tools to support effective selection and recruitment including e-recruitment					

Strategic Objective	Strategic Actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	4.1.4. Strengthen system to recruit for scarce health professionals from outside sources such as diaspora, volunteers and retirees.					
SO 4.2: Reduce Inequity in Geographic Distribution and skills mix of health Workers	4.2.1. Implement a special support initiative and enroll students from disadvantaged communities and remote areas.					
	4.2.2. Build capacity of RHBs and woredas to identify locally appropriate factors that affect workforce attraction and retention, develop strategies and plan to recruit and deploy health professionals to hard-to-reach areas					
	4.2.3. Develop tailored remuneration and incentive packages in hard-to-reach areas (link with motivation and retention)					
	4.2.4. Enforcing minimum compulsory public service to address shortages of health professionals and geographic distribution					
	4.2.5. Develop a comprehensive strategy to raise awareness, change attitudes and increase commitment of the health workforce to serve communities					
	4.2.6. Regularly review the needs and develop strategies/actions for task shifting to address critical shortage of health professionals					
SO 4.3: Enhance Staff Motivation and Retention	**4.3.1** Design appropriate financial and non-financial motivation and retention incentives at all levels.					

Strategic Objective	Strategic Actions	Implementation Timeline				
		2016/17	2018/19	2020/21	2022/23	2024/25
	4.3.2 Create conducive work climate to enhance workforce stability and productivity					
	4.3.3 Increase opportunities for professional development and promotion					
	4.3.4 Undertake regular review of career structures for all health professionals					
	4.3.5 Conduct regular motivation and retention studies to assess the extent of the retention problem and design motivation and retention mechanisms					
SO 4.4: Enhance performance and productivity of Health Workforce including improved professionalism and compassion to clients	4.4.1. Strengthen regular performance planning, monitoring and improvement programs for health care workers at all levels					
	4.4.2. Conduct comprehensive work climate assessments and develop improvement programs at all levels of health system					
	4.4.3. Conduct regular supportive supervision, mentorship and regular feedback at all levels					
	4.4.4. Strengthen the link between health professionals' performance, professional development and career promotion					
	4.4.5. Conduct regular productivity surveys for evidence-based decisions					

CHAPTER 6:

MONITORING AND EVALUATION

6.1. MONITORING AND EVALUATION: INDICATORS AND MATRIX

Monitoring and evaluating the status and needs of the health workforce is a required to document progress in implementing the HRH SP against its planned targets. A well-developed monitoring and evaluation plan should contain indicators, baseline and performance targets, timeline, data sources and data collection tools; data analysis and a dissemination plan.

Many HRH Strategic Plan M&E indicators were identified from published sources, mainly, Handbook on monitoring and evaluation of human resources for health (2009)[18] developed by the World Health Organization in collaboration with The World Bank and USAID, Health and Health Related Indicators and Health Sector Transformation Plan (HSTP) by Federal Ministry of Health Ethiopia and The Compendium of HRH M&E Indicators by USAID-funded CapacityPLUS Project[19]. However, data on most of these indicators is not available to determine the baseline value and set performance targets over the years. As a result, only seven (7) indicators were selected, as summarized in Table 6.1.

Table 6.1. Monitoring and Evaluation Indicators for HRH SP

Indicator[20]	Descriptions	Calculations	Type	Appropriate level to measure	Frequency of Measurement	Baseline (2015/16)	Performance Target	
							2020	2025
Health Professionals Density (Per 1000 population)	Total number of health professionals per 1000 population	Numerator: Total number of health Professionals in public sector Denominator: Total population of the same countryX1000	Impact	National Regional	Annual	1.5	1.6[21] 2.4[229]	3
Skills mix	Distribution of HRH by occupation, specialization or other skill-related characteristic	N: Number of physicians, nurses and midwives[23] D: Total number of health workers	Output	National Regional	Annual	44.7%[24]	50%	50%

[18]WHO (2009). Handbook on monitoring and evaluation of human resources for health: with special applications for low- and middle-income countries / edited by Mario R Dal Poz … [et al].

[19]Ibid #16

20 Ibid #17

21 Also a target in HSTP

22 Based on current projection

23 (or other categories of health service providers)

24MoH (2016): National Human Resources Data. May 2016 (Submission 4)

Indicator[20]	Descriptions	Calculations	Type	Appropriate level to measure	Frequency of Measurement	Baseline (2015/16)	Performance Target	
							2020	2025
Geographic distribution	Distribution of HRH by geographical location (Workforce Density by the Regions)	N: Number of health workers in rural areas (or other epidemiological, administrative or economic region) D:Total number of health workers	Output	National Regional	Annual	N/A	TBD	TBD
Gender distribution	Distribution of HRH by sex	N: Number of female (or male) health Workers D: Total number of health workers	Output	National Regional	Annual	45%[25] (F)	1:1	1:1
Workforce production or generation ratio	Ratio of entry to the health workforce	N: Number of graduates of health professions education institutions in the last year D: Total number of health workers	Output	National Regional	Annual	38%[26]	45%	26%
Workforce loss (attrition) rate	Proportion exits from the health workforce	N: Number of health workers who left the active labor force in the last year D: Total number of health workers	Output	National Regional	Annual	6.6[27]	4	4

25 WHO (2010): Africa Health Workforce Observatory. Ethiopia Country Profile

[26] An estimated number of 20,000 health professionals had entered the workforce every year between 2009 and2015. Based on the projections an estimated number of 22,000 health professionals will enter the workforce between 2016 and 2020 while this number will be 17,000 between 2021 and 2025.

[27] Source: Health Sector Transformation Plan (2015/2016-2019/2020). However, based on the current projection it will reach 2.4 by 2020 and 3 by 2025

Indicator[20]	Descriptions	Calculations	Type	Appropriate level to measure	Frequency of Measurement	Baseline (2015/16)	Performance Target	
							2020	2025
Provider productivity	Relative number of specific tasks performed among health workers	N: Specific tasks performed over a given period (e.g. ambulatory visits, immunizations, surgeries) by a given health service provider D: Total number of specific tasks performed over the same period among all health service providers	Output	National Regional Health Facility	Annual	N/A	TBD	TBD

These general indicators can provide valuable information on the number, placements (urban/rural, primary vs. secondary facilities and management structures), professional qualifications (categories), and levels of specialization and inter-professional proportion of the health workforce. Data on many of these general indicators are available and relatively easy to measure annually by collecting HR data from the regional and sub-regional levels.

On the other hand, the indicators can be measured at all levels of health system. However, for simplicity and to avoid delays in decision-making, they should only be monitored at national and regional levels.

6.2. Comprehensive M&E Matrix

Several HRH indicators could be selected from the sources referenced above, in line with the four strategic outcomes and 14 Strategic Objectives contained in this National HRH Strategic Plan. However, it was found to be extremely difficult to find appropriate data to determine baseline performance and set targets over the years. To avoid the misunderstanding that National HRH SP is monitored/evaluated only by very few indicators, several indicators were identified based on the strategic outcomes (strategic objective and actions) and monitoring and evaluation matrix was developed (Annex B3).

6.3. MONITORING AND EVALUATION: APPROACHES

In addition to identifying suitable M&E indicators, a clear and systematic process should be in place to support the practice. Thus, the MOH will set up mechanisms to continuously monitor the implementation of this SP including the following:

- The MOH will create appropriate organizational structure, deploy staff and provide necessary training in M&E of HR development and management in health sector.
- Conduct quarterly, semi-annual and annual assessments, supportive supervision and review meetings at national and sub-national levels
- Design and conduct a formal mid-term evaluation of the plan in 2020; and an end term evaluation of the plan will be carried out in 2025
- Commission special studies such as the retention study to track outcome and impact level HRH indicators
- Disseminate the M&E findings to key stakeholders

ANNEX A

CHAPTER 7: PROJECTIONS AND COSTING

A1. HEALTH FACILITY SCALE UP AND PROJECTIONS OF HEALTH WORKFORCE

1.1. HEALTH FACILITY SCALE UP PLAN[28]

One of the major assumptions for health workforce projection is the pace of expansion of health facilities. Based on the population norm approach (the health facility to population standard of the country), the expected number of public health facilities by the year 2020 and 2025 was calculated and shown in Table A1.1.

TABLE A1.1. POPULATION-BASED HEALTH FACILITIES EXPANSION IN 2015, 2020 AND 2025

	Standard	Baseline year (2015)	Mid-term (2020)	End-line (2025)
		Population 90,142,000	Population 102,486,220	Population 116,520484
Functional Health Facilities as December 2015				
Health Post	1:5,000[29]	16,477[30]	21,741	29,130
Health Center (Total)	1:25,000	3,542[31]	3,792	4,224
Primary Hospital	1:100,000	153[32]	820	874
General Hospital	1:1,500,000	54	102	117
Specialized Referral Hospital	1:5,000,000	20	26	33

*Population Profile (2015: **U**rban=15,324,192 **R**=74,818,116; 2020: **U**= 20,497,244, R=81,988,796; 2025: **U**=29,130, 122, **R**=87,390, 365)*

[28] the population norm approach has been used in the One Health Tool (OHT)

29 The standard is 3000-5000 pple/HP; 15,000-25,000 for rural setting and assumed 40,000 pple/ HC in the urban settings; 60,000-100,000 pple/PH; 1,000,000-1,500,000 pple/GH and 3,500,000-5,000,000 pple/SH

[30]MoH Annual Performance Report 2015

[31]MoH Annual Performance Report 2015, Functional Health Centers as of 2015

[32] Data on the number and categories of the hospitals came from Annual HR and Infrastructure Data collected by USAID-funded HRH Project. Data collected between October and November 2015. All hospitals were functional at the time of data collection. Based on the population size and standard, there should have been 748 Primary Hospitals by 2015. However, only 153 were functional and affects the actual number of PH is 2020 and 2025

The progress towards the proposed facility scale-up plan should be periodically reviewed as this will affect the HR plan and training. Furthermore, based on the available stock and distribution of health professionals, regular reviews and decisions should be made to strike a balance between task shifting and conventional training categories.

The current projection is based on the assumption that there will be a full realization of the health facility expansion plan. However, this might overestimate the HR requirement and distort the HR plan related to training and deploying the health professional categories specifically designed to address local need through innovative approaches such as Integrated Emergency Surgical Officers (IESO) and Health Officers (HO).

1.2. EXISTING STAFFING STANDARD FOR HEALTH FACILITIES

The existing staffing minimum norms/standards developed by FMHACA were reviewed and summarized as a basis for the projection of health workforce needed during the development of the National HRH SP. While the availability of the health workforce in the conventional (standard) HRH categories will continue to improve over the period of this strategic plan, there will also be a continued investment in task shifting.

As the HRH landscape continues to improve, the health service packages that will be delivered through the primary health care facilities will also be expanded. Therefore, highly trained health professionals such as general practitioners, nurses, midwives, laboratory technologists, pharmacists and family physicians will be deployed to the primary health care facilities. Similarly, health facility standards and staffing requirements will be regularly reviewed. Table A1.3 shows existing staffing standards developed by FMHACA guidelines, while other categories were also included and optimum numbers were estimated based on expert opinion.

TABLE A1.3. MINIMUM STAFFING STANDARDS FOR THE GOVERNMENT-OWNED HEALTH FACILITIES (BY FMAHACA)

Occupational Group	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital
Doctors and specialists					
General Medical Practitioner	0	1	4	18	36
General Surgeon	0	0	0	3	5
Cardiothoracic Surgeon	0	0	0	0	1
Endocrine Surgeon	0	0	0	0	1
Gastrointestinal Surgeon	0	0	0	0	1
Maxiofacial Surgeon	0	0	0	0	1
Neurosurgeon	0	0	0	0	1
Pediatric Cardiac Surgeon	0	0	0	0	1
Pediatric Surgeon	0	0	0	0	1
Plastic & Reconstructive Surgeon	0	0	0	0	1
Transplant Surgeon	0	0	0	0	1
Emergency Medicine Specialist	0	0	0	0	1
Urosurgeon	0	0	0	0	1
Urologist	0	0	0	0	1
Vascular Surgeon	0	0	0	0	1
Forensic Medicine	0	0	0	0	2
Dermatopathologist	0	0	0	1	1
Dermatovenerologist	0	0	0	1	1
Family Physician	0	0	1	2	0
Internist	0	0	0	2	5

Occupational Group	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital
Adult Endocrinologist	0	0	0	0	1
Adult Interventional Cardiologist	0	0	0	0	1
Cardiologist	0	0	0	1	2
Gastroenterologist	0	0	0	1	2
Hematologist	0	0	0	0	1
Infectious Disease Specialist	0	0	0	0	1
Intensivist	0	0	0	0	1
Nephrologist	0	0	0	1	2
Neurologist	0	0	0	1	3
Oncologist	0	0	0	2	3
Pulmonologist	0	0	0	0	1
Obstetrics and Gynecology Specialist	0	0	0	3	5
Oby/Gynecologists & Gynecologic Oncologist	0	0	0	0	1
Ob/Gynecologists and Perinatologist	0	0	0	1	1
Ob/Gynecologists and Urogynaecologist	0	0	0	0	1
Ophthalmologist	0	0	0	2	4
Cornea Specialist	0	0	0	0	1
Glaucoma Specialist	0	0	0	0	1
Pediatric Ophthalmologist	0	0	0	0	1
Retina Specialist	0	0	0	0	1
Optometrist	0	0	0	0	1
Orthopedic Surgeon	0	0	0	2	5
Pathologist	0	0	0	1	3

Occupational Group	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital
Pediatrician	0	0	0	2	5
Pediatric Endocrinologist	0	0	0	0	1
Pediatric Hematologist	0	0	0	0	1
Pediatric Intensivist	0	0	0	0	1
Pediatric Neonatologist	0	0	0	0	1
Pediatric Nephrologist	0	0	0	0	1
Pediatric Neurologist	0	0	0	0	1
Pediatric Oncologist	0	0	0	0	1
Pediatric Cardiologist	0	0	0	0	1
Pediatric Endocrinologist	0	0	0	0	1
Radiologist	0	0	0	1	3
Clinical Psychologist	0	0	0	0	1
Psychiatrist	0	0	0	1	2
Addiction Psychiatrist	0	0	0	0	1
Child and Adolescent Psychiatrist	0	0	0	0	1
ENT Specialist	0	0	0	1	1
Medical Physicist	0	0	0	0	1
Dental Surgeon	0	0	0	1	3
Non-Physician Clinicians					
IESO MSc	0	0	2	0	0
Health Officer BSc	0	2	4	0	0
Nurses					

Occupational Group	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital
Nurse MSc	0	0	0	1	3
Nurse professional	0	0	3	47	81
Family Health Nurse professionals	0	2	5	0	0
Neonatal nurse professional	0	0	0	4	8
Emergency & Critical care nurse professional	0	0	0	6	12
OR Nurse Professionals	0	0	2	10	24
Pediatrics Nurse professionals	0	1	2	10	24
Surgical Nurse professions	0	0	1	10	24
Oncology nurse professional	0	0	0	8	15
Geriatric Nurse Professionals	0	0	0	0	1
Nurse Diploma/Level IV	0	5	20	49	89
Midwives					
Midwife professionals	0	1	2	8	16
Midwife Diploma/Level IV	0	2	4	10	10
Mental Health					
Mental Health MSc	0	0	0	1	0
Clinical Psychologist MSc	0	0	0	1	1
Psychiatry Professionals BSc	0	0	1	4	8
Ophthalmic					
Optometry Professionals BSc	0	0	0	1	1
Ophthalmic Nurse professionals BSc	0	0	1	1	0
Cataract surgery professionals BSc	0	0	1	0	0

Occupational Group	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital
Dental					
Dental professionals (BSc)	0	0	2	3	6
Dental Hygienist/Therapist (Diploma/Level IV)	0	1	0	0	0
Laboratory					
Medical Laboratory technologist MSc	0	0	0	0	1
Medical Laboratory technology professionals	0	1	4	4	12
Medical Laboratory technicians Diploma/Level IV	0	2	3	20	10
Pharmacy					
Clinical Pharmacy MSc	0	0	0	0	1
Radio-pharmacist (MSc)	0	0	0	0	1
Clinical Pharmacy professionals	0	0	2	7	10
Pharmacy technicians Diploma/Level IV	0	2	4	8	8
Physiotherapy and Rehabilitation					
Physiotherapy MSc	0	0	0	0	1
Physiotherapy professionals	0	0	0	2	4
Prosthetics-Orthotics Professional	0	0	0	2	4
Prosthetics-Orthotics technician	0	0	0	4	2
Human Nutrition					
Dietician/Human Nutrition MSc	0	0	0	0	1
Dietician/Human Nutrition Professionals	0	0	1	2	2
Radiography					
Medical Radiography technology (MSc)	0	0	0	0	1

Occupational Group	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital
Medical Radiography technology professional	0	0	1	2	4
Medical Radiography technician Diploma/Level IV	0	0	2	0	0
Audiometery					
Audiometery Professional BSc	0	0	0	1	2
Audiometery Technician level IV	0	0	1	1	2
Speech & Language Pathology Professional	0	0	0	1	1
Health Extension					
Health extension Worker (Rural) Level III & IV	2	0	0	0	0
Health extension worker (Urban) Level IV	0	16	0	0	0
Ambulance Paramedics					
Emergency Medical Technicians Level III & IV	0	0	3	3	3
Other Health care workers					
Environmental Health /Occupational health professionals	0	0	1	2	4
Social worker	0	0	0	2	2
Epidemiologist	0	0	0	0	0
Field Epidemiology MSc	0	0	0	0	0
Health Service managers (MPH)	0	0	0	1	1
Public Health MPH	0	0	0	0	0
M&E MSc	0	0	0	0	0
Health Informatics MSC	0	0	0	0	0
Health Informatics BSC	0	0	0	1	1

Occupational Group	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital
Health Information Technician (HIT) level IV	0	1	2	4	8
Biomedical Engineers BSc	0	0	0	2	2
Biomedical Technician Diploma/Level IV	0	0	1	4	8
Mortuary theaterTechnician Level IV	0	0	0	2	4
Sterilization Technician Level IV	0	0	1	4	8
Maintenance technicians	0	1	2	5	10
Compliance Handling Officer	0	1	1	2	2
Reception/Archive	0	2	4	8	12
Runner and porter	0	0	2	4	8
Cleaners	1	5	15	30	40
HR Officers	0	2	5	10	15
Internal Auditors	0	0	0	1	1
Finance Officer /Accountant	0	1	2	4	6
Security/Guard	1	4	8	20	30
Gardener	0	1	2	6	10

1.3. BASELINE STOCK AND PROJECTIONS

The baseline health workforce data for the strategic plan was collected from all health facilities and management structures in all National Regional States (9), 2 City Government as well as the Federal Agencies, hospitals and institutions. In the base year (2016), the total health workforce was 211,678 out of which 142,657 (68%) were health professionals of various categories. **See Table B1.1, in the annex B, below for details.**

Population-based health facility projection was conducted and staffing needs of those health facilities were developed based on population to health facility standards. Examples of population to health facility are number of people estimated to access health services from a given health facility. For example, 1 health

post serves 3000-5000 people while 1 rural health centre serves 15,000-25,000 people[33]. See Table A1.1., above for the total numbers of health facilities in 2015, 2020 and 2025, based on the country's population size for the corresponding years.

Subsequently, staffing needs were projected based on the MINIMUM staffing standards (Norms) for various categories of public sector health facilities developed by FMHACA in 2012 (Table A1.3). For those professional categories that were not included in the existing staffing standards (e.g. various categories of medical subspecialties), experts' opinion was used to estimate staffing needs by taking into account the epidemiological and demographic trends in the coming decade from the base year (2015/2016).

The result of the HRH projection shows that the number of health professionals will progressively increase to 233,422 by 2020 and **353,454** by 2025. The estimated health workforce by 2020 and 2025 is summarized in the **Table A1.4** below.

TABLE A1.4: THE EXISTING WORKFORCE AND PROJECTIONS FOR 2020 AND 2025

Professional Categories	Actual number of health workforce at Base Year (2016)	Projections	
		Mid-term (2020)	End line 2025
Medical Doctors, Specialists and subspecialists	5,411	14,684	24,101
Non-physician Clinicians (BSC & MSC)	9,746	14,144	21,850
Nurses (all categories)	50,604	85,580	127,299
Midwives	12,069	19,620	29,868
Mental Health Professionals	369	2,160	3,796
Ophthalmic and optometry	343	976	3,181
Dental	270	6,576	10,017
Medical Laboratory	8,870	15,076	23,375
Pharmacy	9,582	14,040	21,608
Anesthesia (all categories)	875	3,284	5,769
Physiotherapy and Rehabilitation	193	764	1,299
Dietician/Human Nutrition	N/A	128	216

[33] 1 Urban Health Center to 40,000 people; 1Primary Hospital Serves 60,000-100,000; 1 General Hospital 1million to 1.5 million; 1 Specialized Hospital services 3.5million to 5million people

Medical Radiography	681	3,352	5,886
Audiometery	N/A	1,124	1,940
Health Extension Workers (rural and urban)	42,310	49,186	61,586
Emergency Medical Technicians	353	2,724	4,821
Biomedical Engineering /Technology	224	1,036	1,823
Environmental Health, and Occupational Health and safety Professionals	2,615	5,668	8,377
Health Informatics/Information technician	3,271	5,884	13,147
Public Health Professionals (all Categories)	336	1,484	2,538
Health Promotion & Public Health professionals (all levels and categories)	2,252	908	1,607
Health Related/Health science Professionals	160	160	264
Total Number of Health Professionals	150,534	248,558	374,388
Administrative and support staffs (Diploma,BSC,MSC)	69,021	95,488	139,652
Grand Total	219,555	344,046	514,020
Project Populations (2016)	92,486,008	102,486,220	116,520,486
Health Professionals Density (per 1000 population)	1.63	2.43	3.21
All Health Workforce/1000 (including admin &support)	2.37	3.37	4.26

- The above table shows cumulative number summarized by the professional categories while **Table B1.5** contained detailed projections by professional Categories. Based on this table, the numeric changes for some of the key health professional categories include:
  - General medical practitioners will increase to 7,376 by 2020 and 15,676 by 2025
  - Nurses (all categories), will increase to 85,580 by 2020, and 127,299 by 2025
  - Midwives (all categories) will increase to 19,620 by 2020 and 29,686 by 2025
  - Anesthesia professionals (all categories including anesthesiologists and anesthesia specialists) will increase to 3,284 by 2020 and 5,769 by 2025

- In addition there will be a total of 96,346 management/administrative and support staff by 2020 and this number will increase to 122,162 by 2025. The proportion of health professionals will remain between 68-73% of the total health workforce. However, these projections need to be updated regularly as more evidence becomes available that reflects both the feasibility of implementing the SP and the changing health care needs. This will be accomplished with the help of the built-in monitoring and evaluation procedures.

A2. COSTING THE HRH STRATEGIC PLAN

- The National HRH SP was costed by using the HRH Module of the OneHealth Tool[34]. Major cost categories 1. Salary, Benefits and Incentives 2. Training and Capacity Development 3. HRH Program Management/Operational Costs. Operational costs were also divided into HRH-specific operational costs, training of HR staff, supervision and performance management, policy and planning among others. **Table A2.1** and **Annex Table B2.1** show major and detailed costing, respectively.

A2.1. SALARIES AND BENEFITS OF HEALTH WORKFORCE

- Salary and benefits were estimated based on the assumption that the facilities' scale up will proceed as planned, and all the new and existing facilities will be staffed as per the minimum staffing standard. This approach may potentially lead to overestimation of costs of salary and benefit as the HRH requirement on which the cost estimation is based exceeds the HRH availability. Thus, it is not generally useful to estimate a 10 years' cost related to salary, rather it suffices to estimate the yearly increase of the cost related to salaries and benefits. It is important to review the available fiscal space –not just for the HR component but the overall flow of resources to the health sector as HR is just one input.

A2.2. TRAINING AND CAPACITY DEVELOPMENT

- This category includes the costs for in-service training (IST) and continued professional development (CPD). IST/CPD costs are estimated by calculating 10% of the current annual salary of each category of HRH towards IST/CPD. In addition, IST/CPD for HR staff at national, regional and local levels were estimated and included under program specific operational costs. On the other hand, pre-service education costs are largely covered by the education sector and including this into the cost estimate might unnecessarily inflate the overall cost on health sector. However, pre-service education inputs from the health sector for such areas of training conducted by regional health science colleges and hospital based residency programs should be estimated. Major costs under this category include cost of establishing learning resource center (ICT + minor renovation), faculty development (IST), establishing/strengthening quality assurance (QA) units, QA Training, enhancing skill labs, availing e-readers (tablets) and post graduate training on medical education and effective teaching. These elements were not specifically estimated as it requires extensive baseline data and was therefore not included in this summary.

[34] World Health Organization (WHO). OneHealthTool. Accessed from www.who.int/choice/**onehealthtool**/en/ .*August 20/2016*

Table A2.1: Major components and sub-components for HRH Strategic Plan budget estimation

Year	2017-2020	2021-2025
Cost Category 1: Salaries, benefits and incentives		
Health Facilities		
Salaries	111,323,618,098.74	382,790,498,936.30
Benefits	11,566,207,883.81	41,601,638,192.49
Incentives	11,779,804,601.00	37,750,329,927.01
Total at Health Facility	134,669,630,584.03	462,142,467,055.81
Administrative Levels (Districts, Regional and National)		
Salaries	3,719,331,577.80	9,005,631,298.79
Benefits	386,022,644.42	977,755,196.75
Incentives	0.00	0.00
Total Admin Levels	4,105,354,222.23	9,983,386,495.54
Total Salaries, Benefits and Incentives (at all levels)	138,774,984,806.25	472,125,853,551.35
Cost Category 2: Training and Capacity Development		
2.1. In-service Training/CPD	9,546,347,412.77	26,091,577,348.30
2.2. Pre-service education	N/A	N/A
Total Training	9,546,347,412.77	26,091,577,348.30
Cost Category 3: HR Administration/Operational		
3.1. HR staff (Program-specific HR personnel) costs	8,956,505,608.72	17,406,138,149.50
3.2. Training and CPD for HR Staff	95,216,014.81	185,043,495.77
3.3. Supportive Supervision (planning, coordination,	170,841.38	332,014.00

visits)		
3.4. Miscellaneous /Other Costs[35]	134,686,434.70	261,750,596.89
Total HR Admin/ Operational	9,186,578,899.61	17,853,264,256.00
Grand Total: HRH Costs	157,507,911,118.62	516,070,695,156.20

[35] Development and implementation of HR policy and procedures, design and review HR strategy and operational plans, HRH situation assessments etc

ANNEX B: MISCELLANEOUS INFORMATION

B1. THE STOCK AND DENSITY OF HEALTH PROFESSIONAL IN 2015

In July 2016, the total health workforce (health professionals and management/support staff) was 210,640. Out of the total, **142,657** were health professionals working in various health facilities and management structures. Table B1.1, below shows the number, regional distribution and health professionals' density (per1000 population) at regional and national level in 2016. However, these figures show only the public sector health workers as data was lacking for the private and non-government sectors.

TABLE A2.1: MAJOR COMPONENTS AND SUB-COMPONENTS FOR HRH STRATEGIC PLAN BUDGET ESTIMATION[36]

	Tigrai	Afar	Amhara	Oromia	Somali	Ben-Gum	SNNPR	Gambella	Harari	Addis Ababa	Diredawa	Grand Total
Health Professionals	9200	2731	27841	42888	4785	2594	27153	1452	934	8783	1036	142,657
Population	5,158,112	1,789,549	21,053,520	34,738,308	5,579,183	947,408	18,737,633	421,070	234,747	3,368,563	457,914	92,486,008
HP per 1000 Population	1.8	1.5	1.3	1.2	0.9	2.7	1.4	3.4	4.0	2.6	2.3	1.5
Other staffs**	4,314	2,180	12,289	15,573	1,060	1,128	12,357	486	739	6,115	529	69,021
Total Health Workforce by Region	13,514	4,911	40,130	58,461	5,845	3,722	39,510	1,938	1,673	14,898	1,565	211,678

**Total of RHBs, Federal Agencies, Hospitals and Institutions, Teaching Hospitals*

** *Supportive* and administrative staffs (diploma, BSC, MSC

[36]Data was collected from September- November 2015 and compilation Completed in July 2016

TABLE B1.2 DETAILED PROJECTION OF HEALTH PROFESSIONALS DEMANDS OF HEALTH FACILITY EXPANSION, 2020 AND 2025

Occupational Group	Staffing Standards					Total Number Required by level *[(Estimated Number of HF of Each Category) X (Staffing Standard)]*					Total Health Professionals (2020)	Total Number Required by level *[(Estimated Number of HF of Each Category) X (Staffing Standard)]*					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						**2020**						**2025**					
Projected Population						**102,486,220**						**116,520,486**					
Health Facility Categories						**HP**	**HC**	**PH**	**GH**	**SH**		**HP**	**HC**	**PH**	**GH**	**SH**	
Estimated Number of health facilities by category						20,497	,612	820	68	20		24,969	6,554	1457	117	33	9,836
Medical Doctor Professionals (GP, Specialists and subspecialists)																	
General Medical Practitioner	0	1	4	18	36	0	4,612	3,280	1,224	720	9,836	0	6,554	5,828	2106	1188	15,676
Dermatopathologist	0	0	0	1	1	0	0	-	68	20	88	0	0	-	117	33	150
Dermatovenerologist	0	0	0	1	1	0	0	-	68	20	88	0	0	-	117	33	150
Emergency/Critical care medicine SP.	0	0	0	1	2	0	0	-	68	40	108	0	0	-	117	66	183
ENT Specialist	0	0	0	1	2	0	0	-	68	40	108	0	0	-	117	66	183

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Family Physician	0	0	1	2	0	0	0	820	136	0	956	0	0	1,457	234	0	1,691
Forensic medicine	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Anesthesiologist	0	0	0	1	2	0	0	-	68	40	108	0	0	-	117	66	183
General Surgeon	0	0	0	3	5	-	-	0	204	100	304	-	-	-	585	165	750
Cardiothoracic Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Endocrine Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Gastrointestinal Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Maxiofacial Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Neurosurgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Pediatric Cardiac Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Pediatric Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Plastic & Reconstructive Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Transplant Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Urosugeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Vascular Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Trauma Surgeon	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Internist	0	0	1	1	2	0	0	820	68	40	928	0	0	1,457	117	66	1,640
Geriatric Medicine Specialist	0	0	0	1	1	0	0	-	68	20	88	0	0	-	117	33	150
Adult Endocrinologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Adult Interventional Cardiologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Cardiologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Endocrinologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Gastroenterologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Hematologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Infectious Disease Specialist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Intensivist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Nephrologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Neurologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Oncologist	0	0	0	1	1	0	0	-	68	20	88	0	0	-	0	33	33
Pulmonologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Interventional Radiation Therapist	0	0	0	0	3	0	0	-	-	60	60	0	0	-	0	99	99

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Obstetrics and Gynecology Specialist	0	0	0	2	2	0	0	0	136	40	176	0	0	-	234	66	300
Oby/Gynaecologist & Oncologist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Ob/Gyn and Perinatologist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Ob/Gyn and Urogynacologist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Ophthalmologist	0	0	0	1	1	0	0	-	68	20	88	0	0	-	117	33	150
Cornea Specialist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Glaucoma Specialist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Pediatric Ophthalmologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Retina Specialist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Orthopedic Surgeon	0	0	0	1	2	0	0	-	68	40	108	0	0	-	117	66	183
Pathologist	0	0	0	1	1	0	0	-	68	20	88	0	0	-	117	33	150
Pediatrician	0	0	0	1	3	0	0	-	68	60	128	0	0	-	117	99	216
Pediatric Endocrinologist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Pediatric Hematologist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Pediatric Intensivist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Pediatric Neonatologist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Pediatric Nephrologist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Pediatric Neurologist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Pediatric Oncologist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Pediatric Cardiologist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Addiction Psychiatrist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Child and Adolescent Psychiatrist	0	0	0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Radiologist	0		0	0	2	0	0	-	-	40	40	0	0	-	0	66	66
Dental Surgeon	0	0	0	2	4	0	0	-	136	80	216	0	0	-	234	132	366
Subtotal						0	4,612	4,920	2,652	2,500	14, 684	-	6,554	8,742	4,680	4,125	24,101
Non-physician Clinicians																	
Health Officer	0	2	4	0	0	0	9,224	3,280	-	0	12,504	0	3,108	5,828	0	0	18,936
Emergency Surgical Officer (MSC)	0	0	2	0	0	0	0	1,640	-	0	1,640	0	0	2,914	0	0	2,914
Subtotal											14,144						21,850
Nurses (all Categories)																	

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Nurse MSc	0	0	0	1	3	0	-	-	68	60	128	0	-	-	117	99	216
Nurse Professional (BSc)	0	0	5	48	81	0	-	4,100	3,264	1620	8,984	0	-	7,285	5616	2673	15,574
Intensive care nurse professional	0	0	0	4	8	0	0	-	272	160	432	0	0	-	468	264	732
Neonatology Nurse Professionals	0	0	3	1	2	0	0	2,460	8	40	2,568	0	0	4,371	117	66	4,554
OR Nurse Professional	0	0	2	10	24	0	0	1,640	680	480	2,800	0	0	2,914	1170	792	4,876
Pediatrics Nurse Professional	0	0	2	10	20	0	0	8,200	680	400	9,280	0	0	2,914	1170	660	4,744
Emergency & Critical Care Nurse Professional	0	0	0	6	12	0	0	-	408	240	648	0	0	-	702	45	747
Family Nurse Professional	0	2	5	0	0	-	9,224	4,100	-	0	13,324	-	13,108	7,285	0	0	20,393
Surgical Nurse Professional	0	0	1	10	24	-	-	820	680	480	1,980	-	-	1,457	1170	792	3,419

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Oncology nurse professional	0	0	0	8	15	-	-	-	544	300	844	0	0	-	936	495	1,431
Geriatric nurse Professional	0	0	0	0	1	-	-	-	-	20	20	0	0	-	0	33	33
Nurse Diploma	0	5	20	49	89	0	23,060	16,400	3,332	1780	44,572	0	32,770	29,140	5733	2937	70,580
Subtotal						-	32,284	37,720	9,996	5,580	85,580	-	45,878	55,366	17,199	8,856	127,299
Midwives											-						-
Midwife Diploma (Level IV)	0	2	4	0	0	0	9,224	3,280	-	0	12,504	0	3,108	5,828	0	0	18,936
Midwife professionals	0	1	2	8	16	0	4,612	1,640	544	320	7,116	0	,554	2,914	936	528	10,932
Subtotal											19,620						29,868
Mental Health																	

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						**2020**						**2025**					
Projected Population						**102,486,220**						**116,520,486**					
Health Facility Categories						**HP**	**HC**	**PH**	**GH**	**SH**		**HP**	**HC**	**PH**	**GH**	**SH**	
Mental Health MSC	0	0	1	0	0	-	-	820	-	0	820	-	-	1,457	0	0	1,457
Psychiatry Professional (nurse)	0	0	1	4	8	0	-	820	272	160	1,252	0	-	1,457	468	264	2,189
Clinical Psychologist	0	0	0	1	1	0	0	-	68	20	88	0	0	-	117	33	150
Subtotal						-	-	1,640	340	180	2,160	-	-	2,914	585	297	3,796
Ophthalmic																	
Ophthalmic Nurse Professional	0	0	1	1	0	0	-	820	68	0	888	0	-	1,457	117	0	1,574
Optometry Professional	0	0	0	1	1	0	0	-	68	20	88	0	0	-	117	33	150
Cataract Surgery Professional	0	0	1	0	0	0	0	-	-	0	-	0	0	1,457	0	0	1,457
Subtotal						0	0	820	136	20	976	0	0	2914	234	33	3,181

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Dental																	
Dental professionals	0	0	2	3	6	0	0	1,640	204	120	1,964	0	0	2,914	351	198	3,463
Dental Hygienist/Therapist (Level IV)	0	1	0	0	0	0	4,612	-	-	0	4,612	0	6,554	-	0	0	6,554
Subtotal											6,576						10,017
Medical Laboratory											-						-
Medical Laboratory Technologist (MSc)	0	0	0	1	1	0	-	-	68	20	88	0	-	-	117	33	150
Medical Laboratory Professionals	0	1	2	8	12	0	4,612	1,640	544	240	7,036	0	6,554	2,914	936	396	10,800
Medical Laboratory Technician(Diploma/Level IV)	0	1	3	10	10	0	4,612	2,460	680	200	7,952	0	6,554	4,371	1170	330	12,425

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Subtotal						0	9,224	4,100	1,292	460	15,076	-	13,108	7,285	2,223	759	23,375
Pharmacy																	
Clinical Pharmacy, MSc	0	0	0	0	1	0	-	-	-	20	20	0	-	-	0	33	33
Radio pharmacist (MSc)	0	0	0	0	1	-	-	-	-	20	20	-	-	-	0	33	33
Clinical Pharmacy Professional	0	0	1	7	10	-	-	820	476	200	1,496	-	-	1,457	819	330	2,606
Pharmacy Technician	0	2	4	0	0	0	9,224	3,280	-	0	12,504	0	13,108	5,828	0	0	18,936
Radio-pharmacist	0	0	0	0	4	0	0	-	-	0	-	0	0	-	0	0	-
Subtotal						-	9,224	4,100	476	240	14,040	-	13,108	7,285	819	396	21,608
Anesthesia Professionals																	
Anesthetist-Diploma (Nurse)	0	0	2	0	0	0	0	1,640	-	0	1,640	0	0	2,914	0	0	2,914

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Anesthesia Professional (BSc)	0	0	1	6	10	0	0	820	408	200	1,428	0	0	1,457	702	330	2,489
Anesthesia Professional (MSc)	0	0	0	2	4	0	0	-	136	80	216	0	0	-	234	132	366
Subtotal						0	0	2460	544	280	3,284	0	0	4371	936	462	5,769
Physiotherapy and Rehabilitation																	
Physiotherapy (MSc)	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Physiotherapy professionals	0	0	0	2	4	-	-	-	136	80	216	-	-	-	234	132	366
Prosthetics-Orthotics Professional	0	0	0	2	4	-	0	-	136	80	216	-	0	-	234	132	366
Prosthetics-Orthotics Technician	0	0	0	4	2	0	0	-	272	40	312	0	0	-	468	66	534
Subtotal						0	0	0	544	220	764	0	0	0	936	363	1,299

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						2020						2025					
Projected Population						102,486,220						116,520,486					
Health Facility Categories						HP	HC	PH	GH	SH		HP	HC	PH	GH	SH	
Dietician/Human Nutrition																	
Dietician/Human Nutrition MSC	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Dietician/Human Nutrition Professional	0	0	0	1	2	0	0	-	68	40	108	0	0	-	117	66	183
Subtotal						0	0	0	68	60	128	0	0	0	117	99	216
Medical Radiography																	
Medical Radiography Technologist (MSc)	0	0	0	1	2	0	0	-	68	40	108	0	0	-	117	66	183
Medical radiography Professional	0	0	1	8	12	0	0	820	544	240	1,604	0	0	1,457	936	396	2,789
Medical Radiography Technician (Dip.Level IV)	0	0	2	0	0	0	0	1,640	-	0	1,640	0	0	2,914	0	0	2,914
Subtotal						0	0	2,460	612	280	3,352	-	-	4,371	1,053	462	5,886

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						**2020**						**2025**					
Projected Population						**102,486,220**						**116,520,486**					
Health Facility Categories						**HP**	**HC**	**PH**	**GH**	**SH**		**HP**	**HC**	**PH**	**GH**	**SH**	
Audiometery and Speech Therapy																	
Audiometry professionals (BSc)	0	0	0	1	2	-	-	0	68	40	108	-	-	-	117	33	150
Audiometery Technician (Level IV)	0	0	1	1	2	0	0	820	68	40	928	-	-	1,457	117	66	1,640
Speech and language pathology professional	0	0	0	1	1	0	0	0	68	20	88	-	-	-	117	33	150
Subtotal						-	-	820	204	100	1,124	-	-	1,457	351	132	1,940
Health Extension Workers																	
Health Extension Workers (Rural)	2	0	0	0	0	40,994	0	-	-	0	40,994	49,938	0	-	0	0	49,938
Health Extension Workers (Urban)	0	16	0	0	0	-	8,192	-	-	0	8,192	-	11,648	-	0	0	11,648
Subtotal											49,186						61,586

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						**2020**						**2025**					
Projected Population						**102,486,220**						**116,520,486**					
Health Facility Categories						**HP**	**HC**	**PH**	**GH**	**SH**		**HP**	**HC**	**PH**	**GH**	**SH**	
						40,994											
Emergency Medical Technicians																	
Emergency Medical Technicians	0	0	3	3	3	0	-	2,460	204	60	2,724	0	-	4,371	351	99	4,821
Environmental Health, and Occupational Health and safety Professionals																	
Occupational Health & Safety Professional	0	0	0	0	3	0	0	-	-	60	60	0	0	-	0	99	99
Environmental Health Professional	0	1	1	2	2	0	4,612	820	136	40	5,608	0	6,554	1,457	234	66	8,311
Subtotal											5,668						8,410
Health Information Professionals																	
Health Informatics	0		0	0	1	0	0	-	-	20	20	0	0	-	0	33	33

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						**2020**						**2025**					
Projected Population						**102,486,220**						**116,520,486**					
Health Facility Categories						**HP**	**HC**	**PH**	**GH**	**SH**		**HP**	**HC**	**PH**	**GH**	**SH**	
Specialist																	
Health Information Professionals/Technician	0	1	2	4	8	0	4,612	820	272	160	5,864	0	6,554	5,828	468	264	13,114
Subtotal											5,884						13,147
Public Health Professionals																	
Health Care and Service managers	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Public Health Specialist Generalist	0	0	0	0	1	0	0	-	-	20	20	0	0	-	0	33	33
Field Epidemiologist (MSC)											536						865
Chief Executive Officer (CEO)	0	0	1	1	1	0	0	820	68	20	908	0	0	1,457	117	33	1,607
Subtotal											1,484						2,538

Occupational Group	Staffing Standards					Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2020)	Total Number Required by level [(Estimated Number of HF of Each Category) X (Staffing Standard)]					Total Health Professionals (2025)
	Health Post	Health Center	Primary Hospital	General Hospital	Specialized Hospital												
Year						**2020**						**2025**					
Projected Population						**102,486,220**						**116,520,486**					
Health Facility Categories						**HP**	**HC**	**PH**	**GH**	**SH**		**HP**	**HC**	**PH**	**GH**	**SH**	
Health related/health sciences Professionals																	
Medical Physicist	0	0	0	0	4	0	0	-	-	80	80	0	0	-	0	132	132
Nuclear Medicine Technician	0	0	0	0	4	0	-	-	-	80	80	0	0	-	0	132	132
Subtotal											160						264
Biomedical Engineers/tech																	
Biomedical Engineers/tech	0	0	2	3	4	0	0	1,640	204	80	1,924	0	0	2,914	351	132	3,397
Subtotal											1,924						3,397
Subtotal (Health Professionals)											248,538						374,368

B3. DETAILED COSTING

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Health Facilities										
Salaries	17,056,109,369.68	23,010,055,018.60	30,626,559,941.40	40,630,893,769.06	49,891,357,348.02	60,929,166,224.98	74,086,817,960.69	89,706,234,406.59	108,176,922,996.03	494,114,117,035.04
Benefits	1,739,721,935.19	2,370,429,711.76	3,186,504,866.46	4,269,551,370.39	5,295,000,988.04	6,531,030,599.78	8,020,663,894.75	9,808,575,174.43	11,946,367,535.49	53,167,846,076.30
Incentives	1,796,761,842.71	2,454,410,415.84	3,258,529,776.19	4,270,102,566.74	5,185,247,536.13	6,222,986,087.21	7,397,829,689.84	8,724,388,001.58	10,219,878,612.26	49,530,134,528.49
Total at Health Facility	**20,592,593,147.59**	**27,834,895,146.20**	**37,071,594,584.05**	**49,170,547,706.19**	**60,371,605,872.19**	**73,683,182,911.97**	**89,505,311,545.27**	**108,239,197,582.60**	**130,343,169,143.78**	**596,812,097,639.83**
Administration : Districts Level										
Salaries	292,036,117.33	351,775,025.49	422,671,160.66	511,036,748.15	581,125,438.16	660,826,792.01	751,459,186.53	854,521,813.96	971,719,480.75	5,397,171,763.03
Benefits	29,790,604.33	36,243,416.05	43,983,330.47	53,710,475.83	61,687,636.26	70,849,576.53	81,372,261.91	93,457,792.31	107,338,283.81	578,433,377.51
Incentives	0	0	0	0	0	0	0	0	0	0
Total District levels	**321,826,721.66**	**388,018,441.54**	**466,654,491.13**	**564,747,223.98**	**642,813,074.43**	**731,676,368.54**	**832,831,448.44**	**947,979,606.27**	**1,079,057,764.56**	**5,975,605,140.55**

Administration: Regional Level										
Salaries	360,715,800.99	434,503,825.24	522,072,980.80	631,219,972.50	717,791,791.73	816,236,935.96	928,183,831.73	1,055,484,244.25	1,200,243,908.35	6,666,453,291.54
Benefits	36,796,618.86	44,766,972.57	54,327,123.73	66,341,853.49	76,195,045.09	87,511,647.47	100,509,008.62	115,436,757.35	132,581,597.71	714,466,624.89
Incentives	0	0	0	0	0	0	0	0	0	0
Total Regional	**397,512,419.85**	**479,270,797.81**	**576,400,104.53**	**697,561,825.99**	**793,986,836.81**	**903,748,583.43**	**1,028,692,840.35**	**1,170,921,001.60**	**1,332,825,506.05**	**7,380,919,916.43**
Administration: National Levels										
Salaries	35,784,395.65	43,104,451.63	51,791,648.86	62,619,450.49	71,207,708.12	80,973,845.29	92,079,408.17	104,708,099.00	119,068,814.78	661,337,822.00
Benefits	3,650,366.20	4,441,055.96	5,389,459.75	6,581,367.18	7,558,841.70	8,681,492.21	9,970,880.46	11,451,770.58	13,152,604.73	70,877,838.77
Incentives	0	0	0	0	0	0	0	0	0	0
Total National	**39,434,761.85**	**47,545,507.59**	**57,181,108.61**	**69,200,817.67**	**78,766,549.83**	**89,655,337.50**	**102,050,288.63**	**116,159,869.58**	**132,221,419.51**	**732,215,660.78**
Total Salaries, Benefits, Incentives (at all levels)	21,351,367,050.95	28,749,729,893.14	38,171,830,288.33	50,502,057,573.83	61,887,172,333.26	75,408,263,201.44	91,468,886,122.70	110,474,258,060.05	132,887,273,833.89	610,900,838,357.59
Training										
In-service Training	1,609,061,661.01	2,058,853,927.54	2,601,094,087.64	3,277,337,736.59	3,824,589,268.84	4,440,216,685.75	5,133,778,048.59	5,911,806,026.46	6,781,187,318.65	35,637,924,761.07
Pre-service education	0	0	0	0	0	0	0	0	0	0
Total Training	**1,609,061,661.01**	**2,058,853,927.54**	**2,601,094,087.64**	**3,277,337,736.59**	**3,824,589,268.84**	**4,440,216,685.75**	**5,133,778,048.59**	**5,911,806,026.46**	**6,781,187,318.65**	**35,637,924,761.07**
HR Administration/Operational										
Program-specific HR	1,801,532,407.07	2,066,717,977.40	2,364,991,212.52	2,723,264,011.74	2,949,294,924.71	3,194,086,403.46	3,459,195,574.95	3,746,308,807.67	4,057,252,438.71	26,362,643,758.22
Training	19,151,971.07	21,971,141.22	25,142,064.12	28,950,838.39	31,353,757.98	33,956,119.89	36,774,477.85	39,826,759.51	43,132,380.55	280,259,510.58
Supervision	34,363.43	39,421.73	45,111.16	51,945.06	56,256.50	60,925.79	65,982.63	71,459.18	77,390.30	502,855.77
General Prog. Mgt	0	0	0	0	0	0	0	0	0	0
Other Costs	27,091,143.30	31,078,959.59	35,564,342.66	40,951,989.15	44,351,004.25	48,032,137.60	52,018,805.02	56,336,365.83	61,012,284.20	396,437,031.59

Total HR Administration/Operational	**1,847,809,884.88**	**2,119,807,499.93**	**2,425,742,730.46**	**2,793,218,784.33**	**3,025,055,943.43**	**3,276,135,586.74**	**3,548,054,840.44**	**3,842,543,392.19**	**4,161,474,493.75**	**27,039,843,156.16**
Grand Total: HRH Costs	**24,808,238,596.84**	**32,928,391,320.62**	**43,198,667,106.42**	**56,572,614,094.75**	**68,736,817,545.53**	**83,124,615,473.93**	**100,150,719,011.73**	**120,228,607,478.71**	**143,829,935,646.29**	**673,578,606,274.82**

ANNEX B3. A COMPREHENSIVE MONITORING AND EVALUATION MATRIX

A comprehensive framework, that also includes the basic HRH indicators, and selected indicators per outcome areas are necessary to monitor the progress of HRH interventions as laid in the strategic plan. The tables below give the indicators, baselines and performance targets for the HRH strategic plan. The 2025 targets will be set later based on evaluation findings and any changes in the focus of the plan in later years.

Outcome 1 Indicators: HRH Policy, Planning and partnership Strengthened at all levels

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
Outcome 1: HRH Policy, Planning and partnership strengthened								
Strategic Objective 1.1: Develop and implement an appropriate HRH standards, guidelines and Legislative Frameworks								
National HRH plan	Presence of a current, comprehensive, strategic national HRH plan to outline policies, laws, and regulations for the health work force in alignment with country needs	Yes/No	1	N/A	N/A	MoH	Interviews at MoH level; observations &documentation review	Every 5 Years

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
Regional HRH SP	Number (%) of Regional Health Bureaus/City Governments who have a comprehensive HRH SP in place	Numerator: Regional Health Bureaus who have HRH SP in place Denominator: All RHBs (11)	0	7	11	Regional	Supportive Supervision and review meetings	Annual
%of HR Support Process who have all HR policy and Procedure Manuals in place (Disaggregated by the RHB, Zones/Woredas and Health Facilities)	% of HR Support Process (Units) with access to Civil Service proclamation and other relevant policy and procedure manuals that cover a wide range of staffing norms, including work ethics, leave and rest, safety, career development, workplace violence and gender discrimination, grievance processes, and terms of service	Numerator: No. of HR Support Process with access to detailed HR manual for current job Denominator: Total no. of HR Support Process Assessed x100	N/A	TBD	TBD	MoH, RHBs, Zonal and Woreda levels, Health Facility (All)	HRIS, Periodic Assessments during Supportive Supervision or other regular surveys	Annual
%ofhealthworkerswithclinical/servicemanuals,guidelines,and/orprotoco	% of health workers with access to updated manuals,guidelines,and	Numerator:No.ofhealthworkerswithreadyaccesstoclinical/servicemanuals,guid				All Levels		Semi-annual/Annua

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
lsavailable	protocolsthatorientandguidetheircurrentclinical/servicefunctions,andarebasedonaccepted(e.g.,WHO)bestpractices	elines,orprotocolsforcurrentjob Denominator:Totalno.ofhealthworkersinterviewedx100						I
SO 1.2: Strengthen HRH Planning at all Levels								
Stock(and density)of HRH	Total numbers of skilled health workers relative to population	Numerator: No. of health workers (by cadre) Denominator: Total population(in country, region, or district) x10,000population				MoH and RHBs	HRIS Surveys and populationcensus	Annual
Vacancy rates (Disaggregated by management levels and health facility levels)	% of HRH positions that have not been filled	Numerator: Total no.of unfilled HRH positions by level Denominator: Total no.of positions by level				All Levels	HRIS	Annual
SO 1.3:Create a Gender Responsive and Healthy workforce								

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
Sex distribution of healthworkers	% of HRH by sex	Numerator: No.of female(or male) healthworkers Denominator: Total no.of health workers x 100				All levels	HRIS	Annual
SO1.4: Engage diverse partners in National HRH Dialogue								
Existence or strength of an HRH stakeholder leadership group (e.g. National and Regional HRH Forum)	Existence or extent to which a partnership of country-level HRH stakeholders (e.g., stakeholder leadership group or technical working group) operates, meets regularly, enacts policy or makes policy recommendations to senior management within the Ministry of Health	Yes/No (for existence) Ordinal scale (1-10), capacity/quality				MoH and RHBs	Structured interviews at government/Ministry of Health level; documentation review	Semi-annual (RHBs), Annual (MoH)
SO 2.1: Strengthen Pre-Service education for health workforce								

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
School attrition (dropout)rate	%ofstudents(byschool,cadre,gender,socioeconomiccharacteristics,reason)whodrop out from school by end of first and last program year[37]	Numerator: No.of dropout students(by characteristics) Denominator: Total no.of students who registered/startedprogram x100					Schoolrecords,nationalMinistryofHealth,MinistryofEducationregistries	
SO 2.2: Strengthen In-Service Training and Continuing Professional Development for health workforce								
In-service training	%ofhealthworkerswhohavereceivedin-servicetraining(allforms)basedonperformanceassessments,taskanalysis,ordevelopmentneedsatleastonceevery3-5years,bycadre,location,andtypeoftraining	Numerator: No. of health workers receiving in-service training Denominator:Totalno.ofhealthworkersbyposition,cadre,andfacility/workplacex100				All levels	HRIS, documentation review, facility assessments	
SO2.3: Strengthen accreditation and regulation of training institutions and health professionals								

[37]"Reason"includesfailuretopass,personal/family,absenteeism,etc.

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
Registration and licensure of health workers	%ofhealthworkersprofessionallycertified/licensed,percadre,nationality,andothercharacteristics	Numerator:No.ofcertified/licensedhealthprofessionals(bycharacteristics) Denominator: Total number of health workers				MoH and RHBs	HRIS,recordsfromprofessionallicensingbodies,fromHRHinformationsystems(MinistryofHealth, private/NGOs/faith-based organizations)	
SO 3.1: Strengthen the HRM Function and Practices at MOH and Other levels								
Professionalizing HR Leadership (HRM Function)	% of HR Leaders/Managers who have Bachelor/Master's Degree in HRH Management[38]	Numerator: No of HR Leaders with Bachelor's or Master's Degree Denominator: Total Number of HR Leadership Positions					HRIS, Annual Data Collection	
SO 3.2: Establish a Comprehensive, Sector-Wide Human Resources Information System (HRIS) and Strengthen Data use for decision-making								

[38]Example, MPH in HRH Management or Equivalent

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
Existence of a human resources information system (HRIS)	Extent to which the government has an information system that collects and maintains data on public sector staffing vacancies, staffing needs, and employment actions (e.g., deployments, transfers, promotions, leave, disciplinary actions, performance evaluations, exits) and status of health workers within the country by cadre, region, and facility	Yes/NO for existence Ordinal scale (1-10), for quality/capacity of HRIS					Structured interview, document review, observation	
SO 4.1: Improve health worker recruitment and deployment at all levels								
Effectiveness (and transparency) of health workforce recruitment strategies	Extent to which health workforce recruitment strategies exist and are implemented to attract qualified graduates and professionals to fill vacant health worker positions (especially in rural, remote, and	Ordinal scale (1-10)				National/Regional	Special interviews (with applicants and recently employed workers), document review	Annual (index)

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
	underserved areas) and utilize standard and transparent practices including equal opportunity							
Efficiency of recruitment	Average number of days an employee spends to complete the hiring process[39]	Mean value in terms of days spent				National /Regional	Special interviews (with applicants and recently employed workers), document review	Annual (index)
SO 4.2: Reduce inequity in geographic distribution and skill mix of health care Workers								
Geographical Distribution of health workforce	Number or Percent of health workers by administrative region	Numerator:No.ofhealthworkersinruralareas(orbyothercharacteristics) Denominator:Total no.of health workers[40]				National and Regional	HRIS	Semi-annual ® Annual

[39]as measured by the time spent by a health professional applicant between the first day of his/her application and the date s/he receives the first salary

[40] Foranillustrative viewoftheway theindicatorisconstructed,seeAppendixB, pages28-29.

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
	(Also: by Sub-region, rural/urban)	Breakdowns by age groups/cadre/sector(e.g., public,private)						(N)
Skills mix	DistributionofHRHbyoccupation,specialization,orotherskill-relatedcharacteristic	Numerator:Numberofphysicians,nursesandmidwives(orothercategoriesofhealthserviceproviders) Denominator: Total number of health workers				Regional	Census, surveys, routine records(HRIS)	Annual
SO 4.3: Enhance staff motivation and retention								
%of workers who have received any form of incentive from employer	%ofworkerswhohavebeenrecognizedfortheirwork(e.g.,employeeofthemonth),orhavereceivedincentives,e.g.,training,goods,allowances,timeoff,orotherforms	Numerator:No.ofworkerswhohaveworkedintheinstitutionandwhohavereceivedany form of recognition or incentive Denominator:Totalno.ofhealthworkerswhohaveworkedintheinstitution(bypositon,cadre,andfacility/workplace)x100				National, Regional, Local levels	HRIS, document review (e.g. payroll survey), interview with health workers in the health facilities	Annual

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
%of health workers who have received supportive supervision[41] in last six months	% ofhealthworkerswhohavebeensupervisedinlastsixmonthswheresupervisorhasprovidedsupportivesupervision	Numerator:No.ofhealthworkerswhoreceivedatleastonesupportivesupervisionvisitinlastsixmonths Denominator: Total no.of health workers interviewed/assessed x100				National, Regional, Local	HRIS, facility assessments/surveys	Semi-annual
SO 4.4: Enhance performance and productivity								
Provider productivity (output index)	Ratio of consultations/services to health worker costs or defined period of time, per facility	Numerator:No.ofspecificconsultations/servicesperformedoveragivenperiod(e.g.,out-patientorambulatoryvisits,immunizations,surgeries)byagiven/allhealthworkers Denominator: Total number of working hours of health worker(s)				National, Regional, Health Facility	Facility/healthworkersurveys;time-motionstudies	Annual

[41] Definition:Supportivesupervisionindexconsiderswhetherthesupervisoraddressedworkerphysical,information,anddevelopmentneeds;assessedperformancetostandards/jobdescription, and managed performance problems; updated knowledge and skills

Indicators	Description	Method of Calculation	Base Year (2015)	Performance Targets		Relevant level for the indicator Measurement	Source of Data	Frequency Measurement
				2020	2025			
Quality of care index	Average quality of care by cadre, facility type, region	Composite indicator(index) made of (illustrative):10greeting; history-taking;examinations;explanations;finalizationandfollow-up				National, Regional, Health Facility	Special studies: observations(third-party mystery clients)	Semi-annual or Annual