The Federal Democratic Republic
of Ethiopia Ministry of Health

HSTP

Health Sector Transformation Plan

HSTP

Health Sector Transformation Plan

2015/16 - 2019/20
(2008-2012 EFY)

October 2015

Contents

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ARI	Acute Respiratory Illness
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral
BCC	Behavioral Change Communication
BPR	Business Process Reengineering
CDC	Communicable Disease Control
C-IMCI	Community Integrated Management of Childhood Illnesses
CSOs	Civil Society Organizations
DHS	Demographic and Health Survey
DNA PCR	Deoxyribonucleic Acid Polymerase Chain Reaction
EDHS	Ethiopian Demographic and Health Survey
EFY	Ethiopian Fiscal Year
EHNRI	Ethiopian Health and Nutrition Research Institute
EmONC	Emergency Obstetrics and Newborn Care
eMTCT	Elimination of Mother-To-Child Transmission of HIV
EOC	Emergency Operations Center
EPHI	Ethiopian Public Health Institute
EPI	Expanded Program on Immunization
EQA	External Quality Assurance
ESPA+	Ethiopia Service Provision Assessment Plus
FDRE	Federal Democratic Republic of Ethiopia
FMHACA	Food, Medicine and Health Care Administration and Control Authority
GDP	Gross Domestic Product
GIS	Geographic Information System
GOE	Government of Ethiopia
GTP	Growth and Transformation Plan
HDA	Health Development Army
HCT	HIV Counseling and Testing
HEP	Health Extension Programme
HEWs	Health Extension Workers
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HMIS	Health Information Management System
HR	Human Resource
HSDP	Health Sector Development Programme
HSS	Health System Strengthening
HSTP	Health Sector Transformation Plan
ICCM	Integrated Community Case Management

ICT	Information Communication and Technology
IDSR	Integrated disease surveillance and response
IEC	Information Education Communication
IFMIS	Integrated Financial Management System
IHP	International Health Partnership
IMNCI	Integrated Management of Newborn and Childhood Illnesses
IMR	Infant Mortality Rate
IPFS MIS	Integrated Pharmaceuticals Fund and Supply Management Information System
IRS	Indoor Residual Spray
IRT	Integrated Refresher Training
ISS	Integrated Supportive Supervision
ITN	Insecticide Treated Net
IYCF	Infant and Young Child Feeding
JANS	Joint Assessment of National Health Strategies
JCCC	Joint Core Coordinating Committee
JSC	Joint Steering Committee
KM	Knowledge Management
KMC	Kangaroo Mother Care
LB	Live Births
LLIN	Long Lasting Insecticidal Net
LMIC	Lower Middle Income Countries
M&E	Monitoring and Evaluation
MARPs	Most At Risk Populations
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MDG PF	MDG Performance Fund
MDGs	Millennium Development Goals
MDSR	Maternal Death Surveillance and Response
MICs	Middle Income Countries
MIS	Malaria Indicator Survey
MMR	Maternal Mortality Ratio
MNCH	Maternal, Neonatal, and Child Health
MOFED	Ministry of Finance and Economic Development
MoH	Ministry of Health
MTCT	Mother-To-Child Transmission of HIV
NBB	National Blood Bank
NCD	Non Communicable Disease
NGO	Non-Governmental Organization
NHA	National Health Accounts
NMR	Neonatal Mortality Rate
OHT	OneHealth Tool
OI	Opportunistic Infections
OOP	Out of Pocket

OPD	Out-patient Department
OVC	Orphans and Vulnerable Children
PASDEP	Plan for Accelerated and Sustainable Development to End Poverty
PFSA	Pharmaceuticals Fund and Supply Agency
PHC	Primary Health Care
PHCU	Primary Health Care Unit
PHEM	Public Health Emergency Management
PLHIV	People Living With HIV
PMQI	Performance Monitoring and Quality Improvement
PMTCT	Prevention of Mother to Child Transmission
PNC	Post Natal Care
PPA	Public Procurement Agency
PPP	Purchasing Power Parity
PRSP	Poverty Reduction Strategic Paper
QA	Quality Assessment
RHBs	Regional Health Bureaus
RMNCAYH	Reproductive, Maternal, Neonatal, Child, Adolescent and Youth Health
SAM	Severe Acute Malnutrition
SBA	Skilled Birth Attendants
SHI	Social Health Insurance
SLMTA	Strengthening Laboratory Management Towards Accreditation
SNNPR	Southern Nations & Nationalities and Peoples Region
SO	Strategic Objective
SRH	Sexual and Reproductive Health
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TB	Tuberculosis
TT	Tetanus Toxoid
U5MR	Under Five Children Mortality Rate
UHC	Universal Health Coverage
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
VERA	Vital Events Registration Agency
VIA	Visual Inspection with Acetic Acid
VNRBDs	Voluntary, non-Remunerated Blood Donations
WBP	Woreda Based Planning
WHO	World Health Organization
WMS	Welfare Monitoring Survey
WoHO	Woreda Health Office
ZN	Ziehl–Neelsen

Foreword by the Minister of Health

Ethiopia has implemented successive Health Sector Development Plans (HSDPs) since 1997 in four phases. During this period, our country has made huge strides in improving access to health services and improvements in health outcomes. Ethiopia's health indicators have been remarkably improved from one of the worst in Sub-Saharan Africa to amongst the stand out performers in just two decades. The lives of millions of children have been saved, millions of new infections and death from communicable diseases such as HIV, malaria, and tuberculosis have been averted. All this was done while building a health system that can sustain the gains over the long term.

Despite the impressive progress made, Ethiopia still has high rates of morbidity and mortaility from preventable causes. There is also disparity in uptake and coverage of high impact interventions amongst different regions and woredas. The quality of health care in terms of improving patient safety, effectiveness, and patient-centeredness, in both public and private facilities, is often inconsistent and unreliable.

The health sector transformation plan, in line with our country's second growth and transformation plan (GTPII), has set ambitious goals to improve equity, coverage and utilization of essential health services, improve quality of health care, and enhance the implementation capacity of the health sector at all levels of the system. A focus in quality and equity requires a shift in the status quo to drive improvements at national scale over the next five years. A national health care quality strategy will be developed to guide our investment towards safer, more effective, more accessible, and more equitable care for every Ethiopian by 2020. We will also produce annual reports about the state of health inequality in Ethiopia to bring political attention and accountability in the sector.

Reproductive, maternal, newborn, child, adolescent health and nutrition will continue to be top priority for the next 5 years. As indicated in the sustainable development goals (SDG), Ethiopia will intensify RMNCAH interventions to end preventable maternal and child deaths by 2030. The targets set in the HSTP are in line with the global aspirations.

The fight against communicable diseases is not over yet. We will focus on the most at risk population groups to combat HIV. The fast-track cities initiative towards 90-90-90 will also be implemented to reach all people living with HIV, put and retain them in treatment, and achieve viral suppression. Efforts will also be strengthened to improve case detection and cure rate of all forms of TB. The risk of multi-drug resistant TB is also on the rise. In addition to prevention strategies, investments will be made to improve access to diagnostic and treatment facility. Ethiopia aspires to achieve subnational elimination of malaria from its mid and low lands in the eastern part of the country. While malaria control measures will be scaled up and sustained, the country will implement strategies to pave the way for malaria-free Ethiopia by 2030. The government of Ethiopia has demonstrated its political committment to fight neglected tropical diseases. Further integrated investments will be made to significantly reduce the burden of NTDs.

Non communicable diseases and injury are also on the rise and fast becoming major public health problems. Prevention strategies will be designed and implemented by integrating the interventions into existing health infrastructure. National scale up and integration of mental health services into primary health care will also be implemented.

The promotion of hygiene and sanitation through the health extension program will be strengthened to scale-up open defecation free kebeles. A national sanitation marketing strategy will be implemented to generate demand and create access to supplied for construction of improved latrines. A special attention will be given for urban sanitation and a multisectoral approach will be used to address the complex sanitation isssues in our cities.

A significant investment will be made to improve our capacity for health emergency risk management. The investment will focus on creating capability to prevent, detect, and contain potential outbreaks. We will build workforce with the aim of boosting the standing and surge capacity to manage health emergencies in our country.

In the HSTP, we have identified four interrelated transformation agendas. These are transformation of quality and equity of health care, woreda transformation, a movement towards compassionate, respectful, and caring health professionals, and information revolution. We believe that the successful implementation of the transformation agendas will help achieve the stretched targets we set in the HSTP.

The HSTP builds upon the sucesses and challenges of the successive HSDPs implemented over the last 20 years. With the endorsement of SDGs, and global focus on sustainable development, I believe that Ethiopia is well positioned to push for attainement of these global development goals. As the chinese saying goes, 'May you live in interesting times.' This is indeed an interesting time. Hence, I call up on our people, health professionals, civil societies, development partners and all stakeholders to put a coordinated effort to realize the HSTP goals.

I have no doubt that with the unwaivering political committment of our government, engagement and ownership of health programs by the community, the steadfast committment of our health workers for our people, and the support of our development partners, we will prevail in succeding to meet the HSTP goals.

Kesete-Birhan Admasu

Minister

Executive summary

In the past two decades, the Government of Ethiopia has invested heavily in health system strengthening guided by its pro-poor policies and strategies resulting in significant gains in improving the health status of Ethiopians. As a result, Ethiopia has done remarkably well in meeting most of the MDG targets. Among the notable achievements include achievement of MDG-4 with a 67 percent drop in under-five mortality from the 1990 estimate, that contributed to an increase in average life expectancy at birth from 45 in 1990 to 64 in 2014. A 69 percent decrease in maternal mortality from a high estimated base of 1400 per 100,000 live births. An improvement in contraceptive prevalence rate from 3% to 42% has led to a drop in total fertility rate from 7.7 in the 1990s to 4.1 in 2014.

Mortality and morbidity due to HIV/AIDS, Tuberculosis and malaria has reduced markedly. Death due to malaria has declined with a significant decrease in admissions and deaths of under-five children by 81% and 73% respectively. Generalized malaria outbreak has not been witnessed for the last decade. HIV new infection has dropped by 90% and mortality cut by more than 50% among adults. Besides, Ethiopia is one of the few sub-Saharan African countries with 'rapid decline" of mother-to-child transmission of HIV,with a reduction by 50% of new HIV infections among children between 2009 and 2012. Similarly the country has achieved the targets set for tuberculosis prevention and control. Mortality and prevalence due to Tuberculosis has declined by more than 50% and incidence rate is falling significantly. The decline in mortality was profound from 2005 onwards partly due to TB/HIV collaborative activities, including the initiation and scaling up of free ART services.

The significant gains made are as a result of the political commitment and strong leadership at all levels of government, community engagement and ownership of health programs, and the unprecedented support from development partners. The country's flagship Health Extension Programme has been the principal vehicle in expanding access to essential health services packages to all Ethiopians, with specific focus on women and children. It has also been the primary vehicles to drive improvements in hygiene and sanitation. More than 38,000 HEWs have been trained and deployed all over the country, availing two HEWs in every Kebele (a cluster of villages). Health extension workers are tasked to transfer knowledge and skills to families they serve so that households have better control over their own health. This philosophy of training and graduating model families, who have demonstrated behaviour change and improved uptake of high-impact health interventions, have been scaled up to reach close 3 million families across the country. A health development army that mobilizes these model families to enhance community engagement and solidarity movements has been established during HSDPIV. Despite the varying degree of success in different localities, the HDA has proved to be a successful strategy to engage community, identify locally salient bottlenecks that hinder uptake of services, and scaling up best practices.

Over the last 20 years, the country has succesfuly implemented its strategy of expanding and rehabilitating primary health care facilities. To this effect, 16,440 health posts, 3,547 health centers and 311 hospitals have been constructed. In parallel to the construction of health facilities, investment in human resource development and managemnt has been scaled up; reformed supply chain and logistics managment to ensure continuous availability of health commodities at an affordable price in a sustainable manner; and strengthen coordination and partnership.

Though good trends are observed, the country is still facing a triple burden of diseases consisting of communicable diseases, non-communicable diseases and injuries. This burden coupled with the ever increasing demand urges the Government to be increasingly focused on addressing equity in access to health care, quality in health services provision and in strengthening community engagement and ownership in health decision-making and management.

Building on the lessons learned in implementing the earlier plans and to be highly responsive to the current socioeconomic landscape, the Government of Ethiopia has developed Health Sector Transformation Plan (HSTP), which is part of the second Growth and Transformation Plan(GTP II). HSTP is also the first

phase of the 20-year health sector strategy called 'Envisioning Ethiopia's Path to Universal Health Care through strengthening of Primary Health Care'.

The overall desire of The Government of Ethiopia is to have the highest possible level of health and quality of life for all its citizens, attained through providing and regulating a comprehensive package of promotive, preventive, curative and rehabilitative health services of the highest possible quality in an equitable manner. This goal will be attained by the government's effort enhanced with community empowerment.

The Health Sector Transformation Plan (HSTP) has three key features: quality and equity; universal health coverage and transformation. The HSTP sets out four pillars of excellence which are believed to help the sector to achieve its mission and vision. These are:

1. Excellence in health service delivery
2. Excellence in quality improvement and assurance
3. Excellence in leadership and governance
4. Excellence in health system capacity

These four areas of excellence are further decomposed in to fifteen strategic objectives categorized under two driver perspectives (business process and learning and growth) and two results (community perspective and financial stewardship). The strategic objectives are linked each other with a cause-effect relationship and every strategic objective has set of performance measures and strategic objectives.

The impact-level targets of HSTP by 2020 is to reduce MMR to 199/100,000LB; reduce under five-year, infant and neonatal mortality rates 30, 20 and 10 per 1,000 live births respectively; reduce stunting, wasting and under-weight in under-5 year to 26%, 4.9% and 13%, respectively; reduce HIV incidence by at least 60% compared with 2010 and achieve zero new infections among children; reduction in number of TB deaths and incidence rate by 35% and 20% respectively compared with 2015 and reduce malaria case incidence and mortality by at least 40% each compared with 2015. It has also set target to stabilize and then reduce deaths and injuries from road traffic accidents.

To acheive these and other impact and outcome targets set for the coming five years, a list of strategic initiatives are set such as:

- High impact interventions of RMNCAYH, nutrition, prevention and control of communicable and non-communicable diseases;
- Initiatives to improve quality and equity,
- Initiatives to improve health emergency risk management: education and information to build culture of health, safety and resilience at all levels; regular risk assessment and early warning; development of public health risks profile maps for each woreda; emergency preparedness for effective health system response and recovery at all levels; establishing Emergency Operations Center (EOC); developing a national health emergency workforce with the right skill mix to enhance standing and surge capacity of the country to respond to emergencies
- Initiatives for community engament and ownership: model kebele graduation; certificate of competency evaluation of households based on HEP standards; self-reliance movements; health literacy and health systems literacy of the public; rollout and expansion of the Health Development Army; roll out the second generation health extension programme
- Initiatives to improve efficiency and effectiveness: financial management; transparency and accountability development program; regular financial and performance audits; efficiency gain; efficient facility revenue utilization; implementation of SHI and CBHI

- Initiatives to make positive contribution to the socio-economic development and accelerate progress towards health outcomes –promoting health in all policies and strategies; strengthening multi-sectoral coordination and regional and global partnership;
- Initiatives to enhance good governance: enhancing leadership capacity; establishing public health leadership incubation center; accountability and transparency; community representation at health facility governing boards and regular town hall meetings and public conferences;
- Initiatives to improve regulatory systems, supply chain and logistics management, research and evidence for decision making, use of technology and innovation, development and management of human resource for health and health infrastructure

Having all the strategic objectives and strategic initiatives for the coming five years, HSTP has also identified four transformation agendas that will help the sector to be transformed:

1. Transformation in equity and quality of health care – This is central to HSTP. The substantial inequalities still existing in health outcomes based on differences in economic status, education, place of residence and gender need to be addressed. During implementation of the HSTP, efforts will be doubled up to ensure equity in health care, which has the following important elements;
    - Equal access to essential health services,
    - Equal utilization of equal need, and
    - Equal quality of care for all

    Therefore, the success of HSTP will mainly be measured by the quality of health service and how equitable the health outcomes are. A detailed roadmap with innovative strategies will be developed to ensure that every Ethiopian is reached with essential, quality services. The possibility of establishing a centre or institute for health equity will also be explored.
2. Information revolution – this is reforming the methods and practice of collecting, analyzing, presenting and disseminating information. It is a radical shift from traditional way of data utilization to a systematic information management. It includes advancing the data collection, aggregation, reporting and analysis practice; promoting the culture of information use at place of generation; harnessing ICT; improving data visibility and access; and strengthening verification and feedback systems.
3. Woreda transformation – Woreda health offices need to be transformed into high-performing entities that translate the national aspirations into a reality. Therefore, woreda transformation aims at narrowing the gap between the high and low performing woredas. It has three components: Model Kebeles, financial protection through CBHI and high performing PHCUs.
4. The Caring, Respectful and Compassionate health workforce – this is multi-pronged approach and is a that calls for a mechanism to persistently remind health professionals the values, hopes, and aspirations that brought them into healthcare. It's a movement that requires champions who identify themselves with their profession and take pride by helping people. It also requires a culture change and a change in attitude, manner, and approach of health care delivery.

The overall costing for HSTP implementation is prepared in two scenarios: base and high case scenario with a total cost of 15.6 billion USD and 22 billion USD, respectively. The targets of HSTP are related to the base case scenario and the resource gap under this scenario is estimated to be 21%.

In general, the ultimate purpose with this plan is to improve the health status of the peoples of Ethiopia in an equitable manner. The HSTP is cascaded to all levels and will be translated into annual operational plans using the Woreda-based health sector annual plan. Its implementation will be consistently monitored using the agreed monitoring framework in a coordinated manner.

Chapter 1

Introduction

Chapter 1: Introduction

The Ethiopian health sector successfully concluded 20 years of the National Health Sector Development Programme (HSDP) divided into four series of five-year HSDPs I to IV commencing in 1997. HSDP IV, which has been part of the first Growth and Transformation Plan (GTP), was the final phase of HSDP which ended in June 2015.

The Health Sector Transformation Plan (HSTP) is the next five-year national health sector strategic plan, which covers EFY 2008-2012 (July 2015 – June 2020). It has been prepared by conducting in-depth situational assessment and performance evaluation of HSDPs; considering the global situation and the country's global commitment; and most importantly, the goals of the national long-term vision and Growth and Transformation Plan (GTP).

The development of the Health Sector Transformation Plan is guided by a roadmap prepared jointly with all relevant stakeholders under the leadership of the Ministry of Health and Regional Health Bureaus. The roadmap clearly stipulated the major steps of the development process, planning approach and methodology and communication strategy. It also clearly indicated the roles and responsibilities of all actors giving due emphasis for the involvement of all relevant stakeholders, including the private sector to ensure commitment by all for the implementation of the strategic plan by having a shared vision.

The performance of HSDP has been reviewed critically using its annual performance reviews and relevant reports, including Health Information Management System (HMIS), the Mid-Term Reviews (MTR), the Joint Review Mission reports and different population and facility-based surveys. The review findings showed that the country has made tremendous achievements from implementing high impact interventions mainly through its flagship community focused program known as the Health Extension Programme. The Ministry of Health embarked on an envisioning exercise to develop its next 20-year plan after the HSDP IV mid-term review. The envisioning exercise resulted in a long-term health sector transformation roadmap titled, 'Envisioning Ethiopia's Path towards Universal Health Coverage through Strengthening Primary Health Care'. The objective of the long-term envisioning exercise was to define a framework for subsequent strategic actions which will enable Ethiopia to achieve the best health outcomes that would be expected of a lower middle income country by 2025 and to achieve at least median health outcomes of an upper middle income country by 2035.

The Health Sector Transformation Plan (HSTP) is therefore the first phase of the 'Envisioning Ethiopia's Path towards Universal Health Coverage through Strengthening Primary Health Care', and part of the second Growth and Transformation Plan (GTP-II) of the country.

A series of consultations were conducted with the private sector, universities, professional associations, other government sectors and development partners including web-based consultations through MoH's official website. The feedback received from these consultative workshops were carefully documented, reviewed and incorporated accordingly. A Joint Assessment of National Strategies (JANS) was conducted and comments were addressed.

The remainder of this HSTP document is organized as follows: chapter two covers the country context; chapter three describes the situation analysis that was carried out; chapter four deals with the HSTP strategy; chapter five details the costing and financial gap analysis; chapter six shows implementation arrangement and chapter seven covers the monitoring and evaluation framework.

Chapter 2

Country Context

Chapter 2: Country Context

2.1. Country profile

Ethiopia is the oldest independent and second most populous country in Africa. It has a unique cultural heritage with a diverse population mix of ethnicity and religion. It served as a symbol of African independence throughout the colonial period, and was a founding member of the United Nations and the African base for many international organizations.

2.2. Geography and climate

Ethiopia is located in the North Eastern part of Africa, also known as the Horn of Africa. It borders six countries - Eritrea, Djibouti, Somalia, Kenya, South Sudan and the Sudan. The country occupies an area of 1.1 million square kilometers ranging from 4,620m above sea level at Ras Dashen Mountain to 148m below sea level[1] at the Danakil (Dallol) Depression. More than half of the country lies above 1,500 meters.

The predominant climate type is tropical monsoon, with temperate climate on the plateau and hot in the lowlands. There are topographic-induced climatic variations broadly categorized into three: the 'Kolla", or hot lowlands up to approximately 1,500 meters above sea level, the 'Wayna Degas" which range 1,500-2,400 meters above sea level and the 'Dega" or cool temperate highlands 2,400 meters above sea level.

2.3. Demographic Profile

Projections from the 2007 population and housing census estimate the total population for the year 2015 to be 90 million (CSA, 2015)[2]. Ethiopia is the home of a variety of nations, nationalities and peoples with more than 80 different spoken languages. The average size of a household is 4.7.

The pyramidal age structure of the population has remained predominately young with 44.9% under the age of 15 years, and over half (52%) of the population in the age group of 15 and 65 years. The population in the age group of over 65 years accounts for only 3% of the total population. While the sex ratio between males and females is almost equal, women of reproductive age constitute 23.4% of the population. The average fertility trend has shown significant decline in recent years from the 2000 level of 5.5 births to 4.1 births per woman (EDHS 2014).

2.4. Government and administration

Ethiopia is a federal parliamentary republic, with the Prime Minister serving as head of government. Executive power is exercised by the government. Federal legislative power is vested in both the government and the two chambers of parliament (Government Communication Affairs Office, 2015)[3].

The Ethiopian constitution, introduced in 1995, created a federal government structure composed of nine Regional States: Tigray, Afar, Amhara, Oromia, Somali, Southern Nation Nationalities and Peoples Region (SNNPR), Benishangul-Gumuz, Gambella, and Harari; and two City Administrations council of Dire Dawa and Addis Ababa. The regional states and city administrations are divided

[1] http://www.ethiopia.gov.et/web/pages/ethoverview
[2] News release of CSA 30th Januray 2015. accessed at http://www.csa.gov.et/images/banners/csa2
[3] http://www.gcao.gov.et/web/guest/politics

into Woredas (districts) and Kebeles (sub-districts). A Woreda/District is the basic decentralized administrative unit and has an administrative council composed of elected members. Zonal administrations are in place in some populous regions above Woredas as an extended arm of the regional states.

2.5. Socio-economic situation

Over the last decade (2003/4 -2013/14), Ethiopia's economy has registered rapid growth with a GDP of 10.9% annual average growth rate. In the last four years of Growth and Transformation Plan (GTP) implementation periods (2010/11 – 20013/14), the economy has also registered robust growth with a GDP of 10.1% annual average growth rate. Agriculture, Industry and Service sectors have 6.6%, 20.0%, and 10.7% annual average growth rates, respectively (MOFED, 2014)[4]. According to Ethiopia poverty assessment, Ethiopian households have experienced a remarkable reduction in poverty rate from 56% of the population living below $1.25 purchasing power parity (PPP) a day to 29% in 2010 (Rio+20, 2012)[5]; this figure is expected to be much lower at the end of 2015 (about 22 as set in GTP-I).

The Government of Ethiopia has been implementing a comprehensive economic reform program over the past decade. The Government follows a market–based and agricultural led industrialization economic policy for the development and management of the economy. Currently the country is exerting utmost effort to ensure economic transformation from an agricultural to industrial led economy. There have been a number of policy initiatives and measures taken in these directions which included privatization of state enterprises and liberalization of government regulations. The health sector is playing its part as a means of economic growth while benefiting from the economic growth. Among the important features of the economic reform in Ethiopia is empowering women through the creation of an enabling environment for equal opportunity for women to participate in the economic development of the country which is enshrined in the constitution. The Ethiopian Constitution recognizes the principle of equality of access to economic opportunities, employment and property ownership for women. Following this, the government has formulated a national gender policy, which recognizes equality between the sexes and sets up mechanisms for the improvement of women's condition, such as the establishment of the Ministry of Women's Affairs. The main strategies employed to implement the national policy include gender mainstreaming in sector and development programs, advocacy and capacity-building initiatives. The health sector is equally committed to strengthening gender mainstreaming at all levels of the health care system through the development of the Gender Mainstreaming manual and supporting its implementation.

Cognizant of the irreplaceable role of the transport sector in economic growth, the government of Ethiopia has spent up to 40% of its capital budget for road construction. As a result, the length of roads has reached 105,000 km, a six-fold increase compared to 1990 road coverage. About 10,765 rural kebeles are connected with the Universal Rural Road Access Program (URRAP), creating better healthcare access to millions of mothers and children who were deprived of such a right before. Similarly, the rural electrification program is benefiting more than 5,100 rural and urban kebeles, paving way to a better life. Connectivity of citizens through modern communication means is showing a prominent stride evidenced by 32 million mobile phone subscribers and a rise in telecom penetration to 37%, thus making Ethiopia one of the top six countries in Africa.

[4] http://www.mofed.gov.et/Amharic/Resources/Documents/ESTIMATES%20OF%20GDP%20AND%20OTHER%20MACROECONOMIC%20INDICATORS_ETHIOPIA%202006%20(2013_14%20EFY).pdf

[5] https://sustainabledevelopment.un.org/content/documents/973ethiopia.pdf

2.6. Educational status

It is a well-established fact that education is a key instrument for socioeconomic development and hence considered as one of the basic human rights. According to several studies, people are observed to have differences in health status, exposure to health risks, access to health services and health seeking behavior because of their differences in educational status. Ethiopia has given due emphasis to improving the educational status of its citizens evidenced by massive expansion of primary, secondary and tertiary level educational institutions. There are 21.2 million children in 30,800 primary and 2,333 secondary schools in the 2013/14 academic year (MOE, 2014). As a result, net primary school enrolment (Grade 1-6) reached 99% in 2014, a five-fold increase from the 1990 rate of 19%.

In 2014, more than 1.7 million youth were attending higher education in 1312 Technical and Vocational Education and Trainings (TVETs) and 33 universities. More than 3.5 million adults benefited from adult education program and W.6 million are currently in adult education programs.

Proportion of girls enrolled in primary and secondary education has exceeded 45% in 2014 as a direct result of the GoE's policy to empower women through enhancing girls' education.

Chapter 3

Performance of the Health Sector Development Programme (HSDP) – Situational Assessment

Chapter 3: Performance of the Health Sector Development Programme (HSDP) – Situational Assessment

The general situational assessment of the health sector which mainly focuses on the performance evaluation of the twenty-year Health Sector Development Program (HSDP) was organized using the WHO framework for monitoring and evaluation of health system strengthening –HSS (See M&E framework chapter 7). The assessment report starts with the activities performed to enhance community ownership. It then presents the whole performance organized using the results' chain beginning with the population's health status and health systems performance (impact and outcome), followed by the health systems' capacity performance which includes the outputs, processes and finally the inputs and processes.

3.1. Community Ownership – the center of remarkable achievement

In the last two decades, the government of Ethiopia has been putting tremendous efforts in building pro-poor policies and strategies, to reorient health services towards health promotion, disease prevention, curative services. Throughout these processes, the key concept of community ownership has been emphasized in all HSDPs.

The country's flagship program, called the Health Extension Programme (HEP), delivers cost-effective basic services to all Ethiopians, mainly women and children. HEP is underpinned by the core principle of community ownership that empowers communities to manage health problems specific to their communities, thus enabling them to produce their own health

The Government believes that the GTP targets can be achieved by organizing citizens voluntarily into functional Development Armies. To this end, the Ministry of Health uses the Health Development Army (HDA) mechanism to organize community and health workers. HDA mobilizes families, mainly women, to scale-up best practices gained from the HEP and ensure wider community participation in facilitating community ownership. HDA implementation started in Ethiopian fiscal year (EFY) 2003, with progress being made in the organization and network formation over the past three years. According to MoH's annual report, a total of 442,773 HDA groups with 2,289,741 one-to-five networks were formed in EFY 2006. Although, the mechanism of reaching every household and community through the Health Development Army is a relatively recent initiative started during HSDP IV, evidence shows that in areas with advanced HDA networks, the coverage of key health interventions has improved significantly including institutional delivery. However, appropriate organization and capacity building of HDA remains a challenge in some parts of the country. The concern is that such inequalities in HDA networks may later be reflected in inequalities of access to services and subsequently in health outcomes. In particular, the implementation of the HDA initiative in developing regions (Afar, Benishangul-Gumuz, Gambella and Somali), and urban areas is yet at its infancy. Fine tuning implementation based on evidence, recognition of excellent implementers, tailored training, strengthening the HEP and primary health care unit (PHCU) link and keeping the momentum with the required political commitment, is critical in scaling up and sustaining HDA gains.

3.2. Health Status – Impact and Outcome Analysis

The impact analysis deals with some vital indicators such as mortality, morbidity, life expectancy, as well as inequalities, whenever information is available. It mainly focuses on progress made to date and challenges encountered in achieving the health specific Millennium Development Goals and addressing other prominent health problems.

3.2.1. Overall health outcome: Life Expectancy and Demographic Dividend

Due to the reduction of morbidity and mortality mainly in child mortality coupled with improvement in social determinants of health, Ethiopians have begun to live longer as evidenced by the improvement with the estimated average life expectancy at birth to 64 years from that of 45 in 1990. This makes Ethiopia one of the six countries which have made top individual gains since 1990. The healthy life of Ethiopians is estimated to be 55 years, indicative of 9 years being compromised with morbid diseases or health conditions which calls for improvement in the quality of life and extending individuals' life expectancy. Life expectancy at 60 years of age has also increased to 18 years in 2012, a three year rise from the 1990 estimate. The probability of dying between 15-60 years of age per 100,000 populations (Adult mortality rate) has decreased by more than 42% in females and 47% in men based on the 1990's estimate (World Health Statistics Report, 2014).

As a result of Ethiopia's commitment to reducing infant and child mortality, improving reproductive health and family planning, and the subsequent fertility decline, the country is on the right path to a population age structure that may enable a demographic dividend. The total dependency rates of Ethiopia were 94.6, 92.9 and 80.6% in 1994, 2007 and 2012 respectively. Breaking this into young and old dependencies, one can observe from the three censuses conducted that the young dependency rates were 88.4, 86.8 and 75% in 1994, 2007 and 2012, respectively, while the old dependency rates were 6.2, 6.1 and 5.6 respectively in the above census years. All the three dependency rates, showed a declining trend from 1994 to 2012. The trend in the size of the working age population of the country showed progressive increase from 51.1% to 55.4% between in 1994 and 2012. It has shown a 0.7 percentage point increase between 1994 and 2007 and a 3.6 percentage point increase between 2007 and 2012. Such an increase calls for appropriate policy of creating adequate job opportunities to benefit from the demographic dividend. Urban unemployment rate is about 17.4% (CSA, 2014). The corresponding rates for males and females were 11.3 percent and 24.1 percent respectively.

3.2.2. Reproductive, Maternal, Neonatal, Child, Adolescent and Youth Health (RMNCAYH)

3.2.2.1. Maternal and child health MDG performance

Reduction of Child Mortality-MDG 4:

According to the 2014 World Health Statistics Report, Ethiopia has achieved MDG 4 target three years earlier by reducing under-five mortality by 67% from the 1990 estimate. The UN Inter Agency Group's 2013 mortality estimate reported that Ethiopia's under-five, infant and neonatal mortality rates were 68, 44 and 28 per 1000 live births respectively.

From 1990 to 2000, the average Annual Reduction Rate (ARR) of U5MR was at 2%, which accelerated to 5% since 2000. Notwithstanding the achievement observed in the reduction of under-five mortality rates, about 190,000 children are still dying each year. Moreover, the reduction in mortality in neonatal age groups (48%) is not as impressive as that of childhood mortality.

The major causes of under-five mortality, based on the 2014 WHO/CHERG estimates for Ethiopia, are acute respiratory infection (ARI) (18%), diarrhea (9%), premature births (11%), sepsis (9%), birth asphyxia (14%), meningitis (6%), injury (6%), measles (3%) and others (21%). Malnutrition underlies nearly 50% of under-five deaths. Prematurity (37%), infection (28%), and asphyxia (24%) are the most common causes of death in neonates. Neonatal conditions which used to account for a quarter of under-five deaths in 2004 have recently increased to 43% while deaths due to malaria, measles, HIV, diarrhea and pneumonia have declined (The Lancet, 2012). Moreover, there is wide geographic and socio-economic variation in under-five mortality rates. According to the EDHS 2011, it ranges from as low as 53/1000 live births in Addis Ababa to as high as 169/1000 live births in Benishangul-Gumuz region. Additionally, there is a strong association of newborn and child mortalities with wealth, maternal educational status, residence, maternal fertility characteristics and access to safe water and sanitation.

Improve Maternal Health –MDG 5:

According to UN estimates, Ethiopia has so far reduced maternal mortality by 69% from the 1990s estimate with annual reduction rate of 5% or more. According to the latest UN estimate, the proportion of mothers dying per 100,000 live births has declined from 1400 in 1990 to 420 in 2013.. However, EDHS 2005 and 2011 reported maternal mortality rate of 673 and 676 per 100,000 live births respectively, indicating no change between the two surveys. Another report from Lancet (2014) estimated that maternal mortality was 497 in 2013. Significant variation in estimating maternal mortality is observed in different studies, calling for more robust and locally generated information. However, a reduction was observed in maternal mortality in all the studies with different magnitude of reduction.

Hemorrhage, hypertension in pregnancy, abortion and sepsis are the leading causes of maternal deaths, which can only be averted through skilled institutional care.

3.2.2.2. Child health services

The achievements in child health are mostly attributable to large scale implementation of promotive, preventive and curative primary health care interventions alongside a positive trend of socioeconomic changes. These include: IMNCI/ICCM [6](currently being provided in more than 2500 health centers and 12,000 health posts); prevention and management of malaria (with 65% of under 5 children sleeping under insecticide treated nets (ITN) with indoor residual spray (IRS) reaching 47% of houses in endemic areas in 2011); community based nutrition programs and establishment of Neonatal Intensive Care Units. Notwithstanding current improvements, coverage of some other essential interventions such as proper case management of acute respiratory illness (ARI) and diarrhea have been low. In the 2011 EDHS, only 27% of children under age of five with symptoms of ARI sought counseling from a health care facility or provider. Similarly, one-fourth of children with fever and 32% with diarrhea sought care from a health care facility or provider.

[6]

The dramatic increase in immunization coverage has also significantly decreased fatalities associated with vaccine preventable diseases. Currently, Ethiopia is providing 10 antigens targeting major killer diseases during childhood. Four new vaccines (PCV 10, Rota and Penta) were introduced since 2007 in addition to the already existing six traditional antigens. The introduction of these new vaccines coupled with ICCM programs and expansion of the Health Extension Programme is expected to further lower childhood morbidity and mortality due to pneumonia and diarrhea. The recent HMIS report of EFY 2006 showed that the coverage of Pentavalent 3, PCV3 and Measles vaccines coverage have reached 91.1%, 85.7% and 86.5% respectively. Fully immunized children under one year of age also reached 82.9% in EFY 2006. Though the coverage is improving, the program is challenged with dropouts, shortage of supplies, vaccine stock out and cold chain breakages.

Availing newborn corners at health centers, establishing neonatal intensive care units in hospitals and more recently, the expansion of community based newborn care by health extension workers (HEWs) is ongoing and expected to contribute to a decrease in neonatal mortality. However, there is still a gap in availing quality health services for newborns in many facilities. Neonatal ICUs are also ill equipped and have yet to expand. The limited competency of midwives, doctors and anaesthetists in the provision of emergency obstetrics and new born care (EmONC) services, lack of a separate newborn corner, absence of a neonatal unit in some health facilities; and low coverage of skilled delivery and newborn care are some of the challenges.

According to draft analysis of the Ethiopia Service Provision Assessment plus (ESPA+), 62% of facilities provide all three basic child health services (outpatient curative care, child vaccination and child growth monitoring.

3.2.2.3. Maternal health services

With the aim of reducing maternal mortality to 267 per 100,000 live births, a set of high impact interventions were being implemented, including antenatal care (ANC), skilled birth services and postnatal (PNC). According to HMIS reports, the proportion of pregnant women who received ANC services at least once exceeded 98%. However, continuity of service and quality of care is not optimal as evidenced by low coverage of skilled delivery, tetanus toxoid (TT) vaccine uptake, screening for syphilis, utilization of ITN as well as suboptimal uptake of prevention of mother-to-child transmission of HIV (PMTCT) services by pregnant women.

Antenatal care:

The Mini-EDHS 2014 reported that ANC follow-up with at least one visit and four plus visits were at 57.2% and 31.6% respectively. Whereas, according to HMIS data, in EFY 2006, the proportion of pregnant women who received ANC (at least one visit) was 98.1% with a range of 54.4% in Somali and 100% in Tigray, SNNPR, Dire Dawa, and Harari regions. However, the key service packages delivered during ANC are delivered with different level of completeness. 65% of pregnant women among those reached by the 2012 EPI survey received tetanus toxoid vaccination, and long-lasting insecticidal nets (LLINs) utilization was reported to be 42% in the 2011 Malaria Indicator Survey. The use of magnesium sulphate for the prevention and treatment of eclampsia is still very low. The nutrition interventions such as micronutrient supplementation also need to be strengthened.

ESPA+ reports that 87% of all facilities assessed offer ANC services. This report indicated that about three-quarters (78%) and 62% of health facilities (excluding health posts) provide TT vaccine and any of the services related to PMTCT respectively. Only 52% of the facilities excluding health posts also had basic lab tests for first-visit ANC clients.

Delivery Service:

Clean and safe delivery by HEWs

As stated in the Mini EDHS 2014 report, about 85% of births took place at home without skilled attendants. As per HSDP-IV, HEWs were to assist with about one-third of deliveries with cleans and safe delivery and do early identification and referral in case of complications. According to HMIS reports, the trend in clean delivery increased in the last couple of years in most of the regions due to the expansion of Health Centers (HCs) and the strengthening of HC-Health Post networks with subsequent focus on the provision of skilled care at birth.

Institutional delivery and emergency obstetric care

All pregnant women are encouraged and supported to deliver in health facilities with skilled attendants. The HSDP IV's target for skilled delivery was 62% and as of the nine months HMIS report of 2007 EFY, the coverage has reached 55%. The 2006 EFY HMIS report showed variation across regions, ranging from 20.8% in Gambella to 85.0% in Addis Ababa. Despite the fact that an increase was observed in all regions, only Harari (78.2%) exceeded its regional target (72.0%) in 2006 EFY (MoH, 2014). Although there are wide variations across regions, tremendous improvement in skilled birth attendance has recently been reported by the agrarian regions. Given the speed of change that is being observed, it is apparent that the HSDP-IV targets for institutional delivery are achievable. The recent increase in skilled birth attendance is attributed to high level political commitment, community mobilization by the HDA, service promotion by HEWs, expansion of health facilities, increased availability of supplies and deployment of appropriately skilled health professionals. These have led to an increase in demand for services and easier access to emergency obstetric services.

The number of health centers and hospitals providing basic and comprehensive emergency obstetric and new-born care has increased compared to the 2008 national EmONC assessment. According to ESPA+ 2014, nearly 65% of all facilities, excluding health posts, offer normal delivery service. Almost all (99%) of the government managed facilities offer normal delivery service while only 27% of private for profit facilities and 69% NGO facilities provide the service. However, only 3% of facilities predominantly hospitals provide caesarean delivery service. Moreover, Government facilities offering normal delivery services are more likely to apply the seven BEmONC signal functions than private facilities. Among the signal functions, availability of anticonvulsant is very low.

Postnatal Care:

The postnatal period is a critical phase in the lives of mothers and newborn babies. Most maternal and infant deaths occur during this time. Therefore, postnatal care is one of the high impact interventions planned in the HSDP with a target of 78% by the year 2014/15 (EFY 2007). Although PNC in the first two days is not captured by HMIS, the EDHS 2014 reported coverage of 12% for PNC within the recommended two days

period. Nevertheless, this is an improvement from three years ago with only 7 percent. However, the HMIS report showed higher coverage of 66% for PNC in EFY 2006.

PMTCT:

The proportion of pregnant women counseled and tested for the prevention of maternal to child transmission (PMTCT) of HIV increased to 57.0% in EFY 2006. The percentage of HIV-positive pregnant women who received ART to prevent Maternal to Child Transmission (MTCT) of HIV has increased to 60.6% in EFY 2006, from the 42.9% estimate of EFY 2005. Further efforts that focus on PMTCT services' delivery as an integral component of MNCH care packages with focus on areas with high unmet needs (hotspots), is being implemented in order to achieve the goals of eliminating MTCT of HIV. Moreover, an integrated register to follow the mother and baby as a paired cohort is in place. Currently option B+ is being implemented in all regions of the country; out of the planned 2,792 facilities, a total 2,542 government and 153 private health facilities are implementing 'option B+", reaching a 97% target achievement at national level in EFY 2006. However, the PMTCT coverage is challenged with factors such as low level of skilled delivery, poor referral linkage in some areas, stock interruption of diagnostic kits and suboptimal community awareness.

Abortion care:

With an estimated annual rate ranging from 23-31 abortions per 1,000 women aged 15–44 (WHO, 2003), about half a million pregnancies are estimated to end in abortion each year in Ethiopia, indicative of the need for comprehensive abortion care. However, only 181,812 clients received safe abortion care in 2013/14 with a slight improvement from the preceding year performance of 138,303 cases according to MoH's annual performance report.

Safe abortion is provided as the law permits following the 2005 revised family law in relation to abortion. The challenges for the provision of safe abortion services include the lack of qualified staff and absence of 24 hours a day, 7 days a week service in most health facilities, especially in HCs.

Fistula care:

About 15% of pregnant women globally are estimated to develop life-threatening obstetric complications. In addition to maternal deaths, obstetric fistula and uterine prolapse, chronic pelvic pain, depression and exhaustion are among the long-term complications of pregnancy, disabling women who survive delivery-related deaths. Because of the low rate of institutional deliveries, data on birth outcomes is not yet universally or routinely available in Ethiopia and proxy indicators are used to estimate prevalence and incidence of obstetric fistula. It was previously estimated by UNFPA (2003) that 9,000 women in Ethiopia develop obstetric fistula each year, and that up to 100,000 women are living with untreated fistula. A more recent (2013) USAID commissioned obstetric fistula situation assessment estimated a fistula incidence of 3,500 per year (2010 baseline) with a prevalence of 37,500 untreated fistula and 161,000 urinary incontinence cases in 2010.

The combined factors of low met need for EmONC, high unmet need for family planning, and high early marriage and teenage pregnancy increases the risk of developing obstetric fistula. There are nine fistula repair centers in the country that are mainly supported by NGOs. In 2013 the average annual number of repairs performed at the nine fistula centers was estimated to be 2,462, which is far below the overall stated capacity to perform 4,000 annually.

Reducing unmet need of family planning, improving institutional delivery, strengthening quality EmONC and referral system coupled with community awareness efforts are expected to eliminate fistula in the near future.

Maternal Death Surveillance and Response (MDSR)

Maternal Death Surveillance and Response (MDSR) is a system being implemented in the entire country to ensure that every maternal death (at home or in a health facility) is identified, audited and responded to. The reporting of maternal death has been incorporated within Integrated Disease Surveillance and Response (IDSR) in order to deepen the initiative's reach down to the community level. A total of 430 maternal deaths were reported as of October 2013 with the majority from Tigray region. The other regions have yet to fully institute this system though progress is being made. Nevertheless, the initiative is challenged by lack of reporting from districts, lack of acceptance and implementation in federal and regional hospitals for fear of perceived punitive actions and slow progress in training IDSR officers.

3.2.2.4. Family Planning:

Bearing many children are among the factors which affect maternal health status. The trend in the last two decades was for Ethiopian women to give birth to an average of seven children in their lifetime (Total fertility rate). According to the recent Mini-EDHS 2014, the average total fertility among Ethiopian women has reduced to 4.1, with 2.2 in urban and 4.5 in rural areas. Hence, the objective of the National Population Policy (1993) of reducing TFR to 4 by 2015 from 7.7 in the 1990s has been achieved. There is huge disparity between regions in Ethiopia from 7 in Somali region to 1.7 in Addis Ababa. The disparity is observed even among urban areas as the total fertility rate of Dire Dawa, Harari and Addis Ababa is 3.4, 3.4 and 1.7, respectively.

Noticeable variation in total fertility rate was also observed among women as a result of their place of residence (urban vs. rural), wealth and educational status. Women living in urban areas, in the higher wealth quintiles and secondary plus education tend to have smaller number of children, with education being the most correlated with a decrease in the number of children.

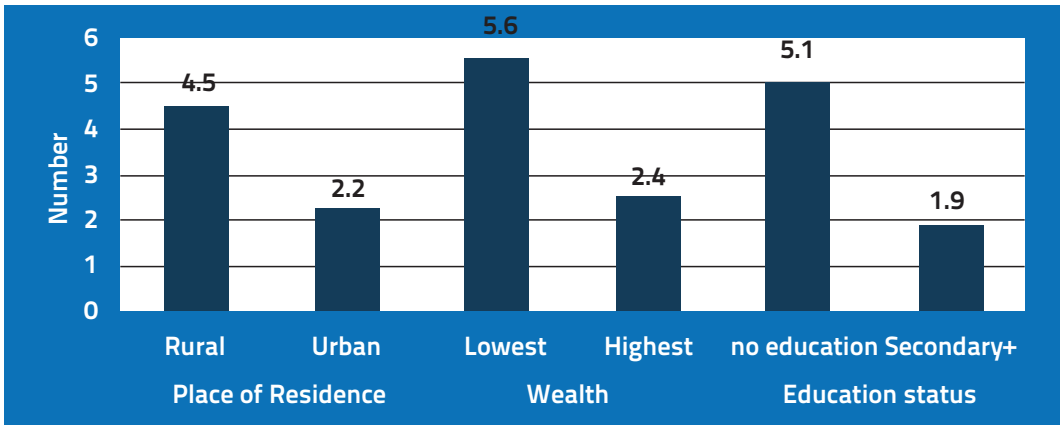


Figure 1: Total Fertility Rate by place of residence, wealth and education status, Mini EDHS 2014

Contraceptive Prevalence Rate (CPR) among currently married women has increased from 8.1% in EDHS 2000 to 41.8% in EMDHS 2014. Hence, the objective of the National Health Policy (1995) of increasing the prevalence of contraceptive use from the 4.0% in the 1990s to 44.0% by the year 2015 fell short by a small margin. While both rural and urban areas showed a consistent increase over time, a nine-fold increase in CPR was observed in rural areas (from 4.3% in EDHS 2000 to 39.0% in EMDHS 2014), with urban areas increasing from 35.6% to 59.6% (+67.4%) in the same period. Worthy of note, is the steepest increase in rural areas that was observed between the EDHS 2005 and EMDHS 2014, when the CPR almost quadrupled in only 9 years (from 10.9% in EDHS 2005 to 39.0% in EMDHS 2014). This was due to the contribution of the HEWs in promoting behavioural change and implementing FP services. Much of this increase is attributable to the sharp increase in the use of injectables.

The unmet need in family planning is gradually declining from 36% in 2000 to 25% in 2010 (EDHS, 2011) and further to 18.9 in 2014 (PMA, 2014). Long acting family planning methods have been emphasized in the last five years evidenced by increased availability of implanon at community level since 2009 and scale up of intrauterine contraceptive devices in hundreds of districts since 2010. It is estimated that more than 90% of the Ethiopian population has access to modern family planning methods through community, facility, social marketing and outreach based modalities. According to the draft ESPA+, 87% of health facilities, excluding health posts, offer a modern method of family planning. About 99% of facilities and 79% of health posts offer family planning services at least five days per week. According to the 2014 EDHS, Injectables and Pills comprise 74% and 6% respectively while implanon and IUD comprise 12% and 3% respectively.

3.2.2.5. Adolescent and youth friendly reproductive health

In recognition that adolescents face varied vulnerabilities to reproductive health issues, MoH has developed a national strategy with minimum service package for scaling up of adolescent and youth reproductive health services.

The highest unmet need for family planning in 2011 EDHS was among the late adolescent age group (15-19 years) indicating the need to further strengthen adolescent reproductive health programs. According to the mini EDHS (2014), the birth rate among adolescents dropped from 79 births per 1,000 women in 2011 to 65 births per 1,000 women in 2014. It is believed that limited access and utilization of adolescent and youth friendly reproductive health services contribute to high rates of maternal mortality and morbidity due to abortion, fistula and other pregnancy-related complications.

3.2.3. Nutrition

Nutrition is a cross-cutting issue that contributes to achievement or acceleration of progress towards several MDGs. Ethiopia has one of the highest rates of malnutrition in Sub-Saharan Africa, and faces acute and chronic malnutrition and micronutrient deficiencies. Nutrition deficiencies during the first critical 1,000 days (pregnancy to 2 years) put a child at risk of being stunted. This affects 40% of children in Ethiopia (Mini DHS 2014).

As confirmed by consecutive EDHS results, there is a decline in stunting, underweight and wasting in children under-five years of age. However, a stunting rate of 40% remains a great concern with the subsequent life course impact of malnutrition on the long-term health of individuals and the socioeconomic development of the nation. There is a regional variation ranging in malnutrition 22.9 % in Addis to 49.2 % in Afar and seven of the regions have a rate more than 30%. Stunting is more prevalent among rural dwellers and children from families in the lowest quintiles of educational and wealth status.

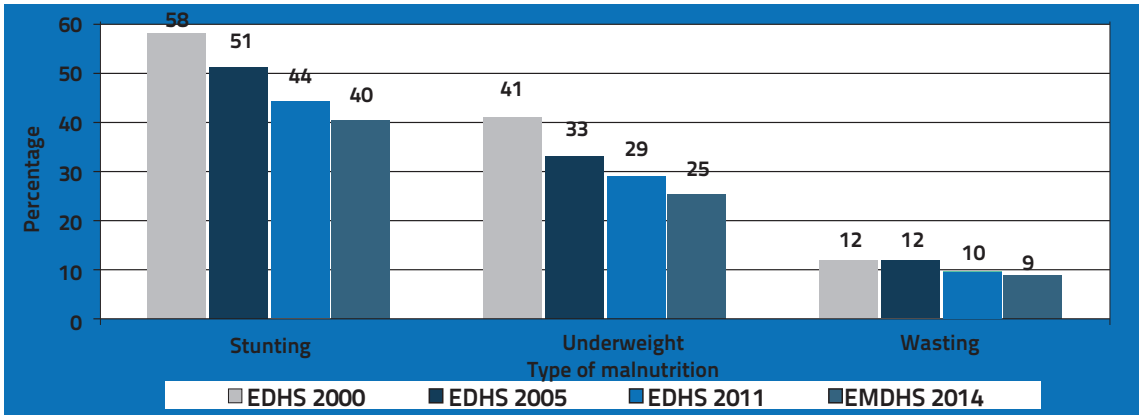


Figure 2: Trend of nutritional status among Ethiopian children (EDHS 2000, 2005, 2011 and 2014)

Twenty-seven percent of women age 15-49 are thin, that is, they fall below the cut-off of 18.5 for the body mass index (BMI), and 9 percent are moderately or severely thin. Only 6 percent of women are overweight or obese (BMI ≥25 kg/m2).

Micronutrient deficiency is another concern particularly in children. Vitamin A deficiency (VAD) is a severe public health problem in Ethiopia affecting many children 6-59 months of age in the 11 regions of the country (DHS, 2005). Clinically overt vitamin A deficiency can lead to childhood blindness if left untreated. VAD is likely one major contributing factor to the high under-five mortality rate in Ethiopia.

The prevalence of anemia in general among Ethiopian women aged 15 – 49 years has declined from 27% in 2005 to 17% in 2011, a decrease of 37%. The prevalence of mild and moderate anemia has also declined between the two DHS surveys, from 17% to 13%, and from 8% to 3%, respectively. Forty-four percent of children ages 6-59 months are anemic, with 21 percent mildly anemic, 20 percent moderately anemic, and 3 percent severely anemic (EDHS, 2011). Iodine deficiency disorder (IDD) is among the micronutrient deficiencies in Ethiopia.

Regarding infant feeding practices, about 52% of children under-6 months were exclusively breastfed. A greater concern is on consumption of recommended four food groups among children older than 6 months as only 4.3% of children in this age group consumed the requisite four food groups. Only 13% of children under age of two years consumed iron rich food.

The Cost of Hunger Africa study (WFP, 2013) estimated that 4.4 million additional clinical episodes are associated with under-nutrition among children aged 5 years and below incurring an estimated cost of $154 million in 2009. In this study, under-nutrition was associated with 24% of all child mortalities with estimated 379,000 deaths in the period 2004-2009. Over all, the study estimated that Ethiopia has lost about $ 4.7 billion as the result of under-nutrition in 2009 alone, an equivalent of 16.5% of GDP.

Cognizant of the nutrition issues, a national nutrition strategy and program (NNP) has been developed and implemented in a multi-sectoral approach. The HSDP IV has integrated nutrition into the Health Extension Programme to improve the nutritional status of mothers and children through Enhanced Outreach Strategy (EOS) – now being transformed into the Community Based Nutrition program (CBN), Health Facility Nutrition Services, and Micronutrient Interventions and Essential Nutrition Actions / Integrated Infant and Young Feeding Counseling Services. Besides, more than 10,000 health facilities are treating Severe Acute Malnutrition (about 95% of which are health posts). With the contribution of these efforts, the prevalence of maternal anemia has declined from 27% in 2005 to 17% in 2011. More than 10 million children are receiving Vitamin A supplementation and de-wormed annually.

In EFY 2004, 10,000 health facilities were treating severe acute malnutrition (SAM) – 95% of which were HPs. In total 3995 metric tons Ready to Use Food was disseminated. The HMIS reports that 322,336 SAM cases were treated last year with 85.2% cure rate, 4.1% defaulter rate and a mortality rate of 0.4%.

3.2.4. Prevention and control of major disease burdens

3.2.4.1. HIV/AIDS, Tuberculosis and Malaria - MDG 6 Performance

HIV/AIDS

According to the HIV related estimates and projections for Ethiopia (MoH/EPHI, 2012), the adult HIV prevalence is estimated at 1.2% (0.8% in males and 1.6% in females) and the adult HIV incidence stood at 0.03% in 2014. This indicates that Ethiopia has achieved the MDG target of halting and reversing the epidemic well ahead of time by reducing HIV new infection by 90% and mortality by more than 50% among adults in the last decade. Ethiopia is one of the few sub-Saharan African countries with a'rapid decline" of HIV burden, with a reduction by 50% of new HIV infections among children between 2009 and 2012 (UNAIDS report 2013). Annual rate of AIDS related deaths has declined from 106,761 deaths in 2002 to 41,451 in 2012. Empirical data from the AIDS Mortality Surveillance study shows a steady decline in AIDS related mortality from 2001 to 2009. AIDS-related deaths among men declined from 41% (2001) to 11% (2009); and from 51% (2001) to 14% (2009) among women. The mortality and incidence rates have dropped by about two-thirds since the initiation of ART program in 2005. Although the incidence and prevalence rates have shown a declining trend, Ethiopia's large population means that there are more than 750,000 people living with HIV/AIDS. Moreover, HIV prevalence is still very high in some of the regions and peri-urban areas of Ethiopia. Additionally, there are people with high risk behaviors. The HIV prevalence is relatively higher among residents of urban areas and the higher quintiles in wealth and education.

Ethiopia is on track in achieving the MDG 6 target of universal access to treatment of HIV/AIDS by having 344,344 PLWHIV were currently on ART by the end of EFY 2006 out of the target of 431,644 who need ART, with achievement of 79.8% ART coverage among adults (MoH report, 2014).

Tuberculosis

According to WHO's 2014 Global TB report, Ethiopia has achieved all the three targets set for tuberculosis prevention and control. Mortality and prevalence due to Tuberculosis has declined by more than 50% and incidence rate is falling significantly. The decline in mortality was profound from 2005 onwards partly due to TB/HIV collaborative activities, including the initiation of ART services for free.

The estimates of TB incidence rate have shown a steady decline at an average rate of 3.6% per year since 2000 with an increased rate of decline for the last five years (5.5% per year) while Worldwide TB incidence fell at an average rate of about 1.5% per year between 2000 and 2013. The estimated TB prevalence and incidence reached 480 and 419 per 100,000 populations respectively in 1995, which was mainly due to a rise in HIV infection in Ethiopia. It has now declined to a prevalence and incidence of 211 and 224 TB cases/100,000 populations respectively in 2014.

Ethiopia is among the high burden countries, as well as being among countries with high number of missed cases of tuberculosis. According to WHO's Global TB report of 2014, HIV prevalence in incident TB cases (TB/HIV co-infection rate) is about 11% which is less than the global and African average of 13% and 34% respectively.

Preliminary EPHI's report in 2014 on the Second Round Anti-tuberculosis Drug Resistance Surveillance in Ethiopia revealed that prevalence of MDR TB was 2.3% (95%CI 1.5-3.1%) in new cases and 17.8% (95% CI 13.2-22.4%) in previously treated patients. The prevalence of MDR TB cases has increased compared to the first anti-TB drug resistance surveillance conducted nationwide in 2005 with a prevalence of 1.6% among newly diagnosed TB cases and 11.8% in previously treated TB cases. The rise in prevalence coupled with low detection of MDR TB cases is huge concern to the health sector given the socioeconomic impact it may have if not curbed in a timely manner.

Hence, Tuberculosis is still among the major communicable diseases with huge public health significance. Detecting and curing tuberculosis are among the key health interventions for addressing poverty and inequality.

Malaria

Ethiopia has shown a remarkable progress in achieving malaria related MDG targets evidenced by reduced prevalence and death rates associated with malaria as well as an increase in the proportion of population in malaria prone areas using effective malaria prevention and treatment measures. As a result, no major epidemics were reported in the country since 2003/2004. Additionally, malaria admission rates are projected to decrease 50–75% by the end of 2015 in Ethiopia based on a study of 41 hospitals (World Malaria Report, 2014). On time series analysis regarding malaria cases and deaths, malaria admissions and deaths of under-five children fell by 81% and 73%, respectively (Aregawi M et.al , 2011). The 2011 malaria indicator survey (MIS) shows that 1.3% of all age groups were positive for malaria using microscopy.

3.2.4.2. HIV/AIDS Prevention and Control Services

There was a steep increase in the number of facilities providing HIV Counseling and Testing (HCT), PMTCT and Antiretroviral Therapy (ART) services.

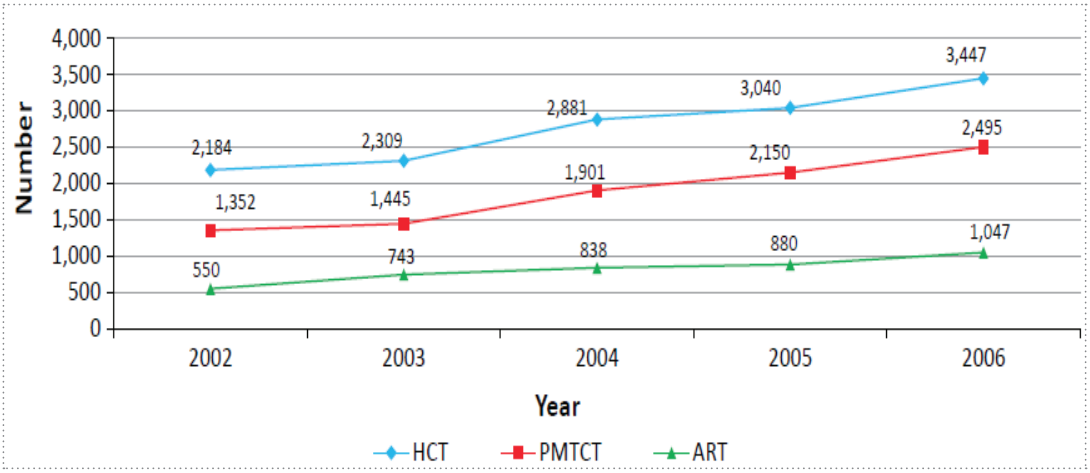


Figure 3: Trend in number of facilities providing HCT, PMTCT and ART services (2002-06 EFY)

One of the targets of HSDP IV was to provide HCT services to 9.2 million people annually. This target has been consistently met since EFY 2002.

An average of 10 million HIV counseling and testing services are being provided annually following the expansion of HIV prevention, care and support services. In EFY 2006 (2013/14), about 805,948 people were enrolled for HIV care overall with 492,649 starting ART therapy and 344,344 on continued ART.

The preliminary ESPA+ report (2014) indicates that about six in ten of all health facilities in Ethiopia, including the private sector, have a testing system-with nearly all hospitals (96 to 100 percent) and health centres (92 percent) offering the service. About three-quarters (74 percent) of higher clinics, four in ten medium clinics and a quarter (24 percent) of health posts also have HIV testing systems. Seven of every ten governmental and NGO facilities have a testing system in place.

3.2.4.3. Tuberculosis and Leprosy Prevention and Control services;

Tuberculosis:

Promising progresses have been made in the last couple of decades through the Health Sector Development Programs which were launched in 1997. The earlier strategies (HSDP I & II) focused on integrated TB and leprosy control programs (TLCP). The focus of the HSDP III was mainly on enhancing the case detection rate and completion of treatment. HSDP IV mainly focused on initiatives that are in line with the global STOP TB Strategy and strengthening early case detection of leprosy.

The TB case detection rate was 53.7% in EFY 2006 (2013/14), below the detection rate of 58.9% in EFY 2005 (2012/13). TB treatment success and cure rates reached 92.1% and 69.1% respectively in EFY 2006.

Multi-drug resistant TB is a public health concern as the number of cases seen is increasing. Since EFY 2001, a cumulative total of 1,559 MDR TB patients were enrolled on second line drug (SLD) treatment. More than 38% (598 cases) of the MDR patients were enrolled in EFY 2006 due to the expansion of diagnostic, treatment and follow-up sites. In EFY 2006, an additional 13 MDR TB centers started providing treatment services, thus increasing the total number of MDR treatment centers to 32 country-wide, while a total of 332 health institutions were providing follow-up services. Treatment outcomes of MDR TB patients enrolled on treatment in EFY 2004 were evaluated in EFY 2006. Evidence from this evaluation showed that 216 out of the total 289 MDR TB cases (74.7%) successfully completed their treatment.

The community-based TB care is short of the coverage target to reach 80% of health posts. About 34% of health posts are providing DOTS services (treatment follow up) during HSDP mid-term review, up from 15% at the beginning of HSDP IV. According to the draft analysis of ESPA+, 29% of health posts are involved in tuberculosis screening and/or treatment follow up. The contribution of public private partnership is about 13% with about 250 private facilities involved in the PPP initiative.

The most common method for pulmonary TB diagnosis is smear microscopy. According to preliminary ESPA+, more than three quarters of hospitals and half of health centers have TB microscopy service. Figure 30 shows most common methods observed in the draft analysis of ESPA+ assessment. Of the facilities (excluding health posts), 52% have diagnostic capacity using TB smear microscopy while 6% has chest X-ray and 2% TB rapid diagnostic test kits. Of the TB smear microscopy facilities, only 11% and 12% have internal and external quality assurance systems in place respectively, and 24% have both systems

The Global Plan to Stop TB 2011–2015 includes the target for countries to maintain at least one smear microscopy centre per 100 000 population[7]. The 2014 Global TB report indicated that Ethiopia has more than 2100 smear microscopy laboratories, thus exceeding the global STOP TB plan set target. Following proof of superiority of the fluorescent light-emitting diode (LED) microscopy on sensitivity, quality, operational and cost advantages over the conventional Ziehl–Neelsen (ZN) light microscopy, WHO recommended that LED microscopy be phased in as an alternative for ZN microscopy in 2009. Globally, the switch to LED microscopes has been gradual with only 6% of microscopy centers having made the switch in 2013. Ethiopia is not an exception in the slower pace of transitioning to LED microscopy but better than the global average by having 13% of its microscopic centers using LED (Global TB report, 2014). However, the number of laboratories for TB culture and drug sensitivity tests (DST) is relatively lower compared to the global target of availing one culture and DST center per population of 5 million. Currently, Ethiopia has seven culture and DST centers placed in strategic locations. Regarding TB/HIV diagnostics, 80% of TB diagnostics or treatment sites have HIV diagnostic capacity and in about 64% of the facilities, there is a system in place for the diagnosis of HIV among TB patients (draft ESPA+, 2014). Similarly, more than 88% of health centers have medicines for the first-line treatment of TB. Furthermore, a total of 28 GeneXpert machines were providing service in 2006 EFY while essential resources were readily available for 71 machines additional machines.

One of the long standing challenges of the TB program was the very low case detection rate which was partly due to the estimate based on WHO's parameters. The first TB prevalence survey conducted in 2011 has enabled a better estimate of the prevalence of the disease. The survey showed a TB prevalence (all forms) of 240 per 100,000 population

[7] *The Global Plan to Stop TB, 2011–2015*. Geneva, World Health Organization, 2010 (WHO/HTM/STB/2010.2).

which is lower than the previous model-based estimate (585 per 100,000 population). Furthermore, the smear positive TB incidence (less than 80/100,000) was at least two times lower than the previous estimate.

The TB program in Ethiopia is well-known with its organized research platform called the TB Research Advisory Committee (TRAC) with the MoH serving as its secretariat. An annual meeting on TB research is held as part of the World TB day celebrations each year where TB and TB related research findings are shared with stakeholders. Moreover, there is an ongoing operational research capacity development program being implemented through AHRI, EPHI and partners.

Efforts to improve Childhood TB care, scaling up of community based TB care, putting TB/HIV co-infected patients on ART, strengthening program management of MDR TB testing and TB infection control need to be strengthened further.

Leprosy

The prevalence of leprosy has sharply declined from 200 per 100,000 population in 1983 to 0.5 per 100,000 population in 2012, following the introduction of the Multi Drug Therapy (MDT) in the 1980s. The prevalence of leprosy has been constant over the past five years and in EFY 2006, a total of 3,080 new leprosy cases were detected, the majority of whom were in Oromia and Amhara Regions (MoH Annual Report, 2014). Intensive training for leprosy management is still carried out in the pockets of the country where the condition is still prevalent with ongoing passive case detection.

3.2.4.4. Malaria Prevention and Control Services

Ethiopia has made significant strides in expanding the coverage of key malaria interventions to over 60% of the Ethiopian population at risk of malaria. The commitment of the government coupled with support from its partners has enabled the scale up of artemisinin-based combination therapy (ACT) as the first line treatment and expanded the use of rapid diagnostic tests (RDT) by the Health Extension Workers (HEWs). Additionally, vector control and prevention, through the wide distribution of long-lasting insecticidal nets (LLINs) supplemented by targeted indoor residual spraying (IRS), have decreased malaria-related morbidity and mortality (World Malaria Report, 2013).

In Ethiopia, nationally aggregated data show an increase in admissions, possibly due to an expansion of health services, with increased hospitals, health centers, and health posts being built since 2005. However, a review of data from 41 hospitals located at <2000 m altitude (malarias areas) indicated a >50% decrease in confirmed malaria cases, admissions and deaths in 2011 compared to 2001.

Analysis of ESPA+ indicated that malaria diagnosis and/or treatment services are universally available in most of the Ethiopian health facilities. More than 90% of health facilities (excluding the health posts which are at 77%), offer malaria treatment services but a little under half have laboratory diagnostic capacity for malaria. Overall, 56% of health facilities, excluding health posts, have capacity for parasitological diagnosis of malaria using either microscopy or rapid diagnostic tests. About 82% of government facilities have the capacity to provide malaria diagnostics compared with 25% of private-for-profit facilities (draft ESPA+, 2014). Fifty-three percent of HPs have malaria testing capacity. About 42% of all facilities that provide malaria services had stock of first-line ACT with 74% of the stocks found in government owned facilities and 4% stocks in private-for-profit facilities.

The cumulative number of ITNs exceeded 65 million and about 6 million households in malaria prone areas are sprayed yearly with indoor residual sprays. On average, three million malaria cases are being treated annually with few hundreds of deaths, making the malaria case fatality rate below 0.01%. In EFY 2006, the total number of laboratory confirmed plus clinical malaria cases of 2,627,182 were treated and 213 deaths were reported (MoH report, 2014).

3.2.4.5. Non-Communicable Diseases (NCD)

Estimates from the WHO (from 2008) indicated an NCDs-related annual death rate of 34% in Ethiopia (WHO, 2010a). In this report, cardiovascular diseases accounted for 15%, cancers for 4% and respiratory disease for 4% of all causes of death. Furthermore, diabetes accounted for 2%, injuries for 9% and other NCDs for 9% of causes of deaths in the same year.

Nationally, representative surveys on NCDs and their risk factors in Ethiopia are not available. However, a number of small-scale studies have reinforced the estimate above. For example, a study from Addis Ababa investigating cause of death using verbal autopsy showed that 51% deaths were due to non-communicable diseases (Misganaw, Mariam & Araya, 2012). In the same study, amongst the non-communicable diseases, cardiovascular disease was the leading cause of death (24%), followed by malignant neoplasms (10%), respiratory tract diseases (9%) and Type 1 and Type 2 diabetes (5%). Similarly, the study revealed disproportionate age-specific death rates, with a significant rise in deaths from non-communicable diseases between the ages of 44 and 74 years.

Another population-based 'STEPS' survey conducted in Jimma (south-west Ethiopia) from 2008 – 2009 showed a substantial burden of NCDs and their risk factors within the community. In this study, a prevalence of 3% of cardiovascular diseases, 2.6% of hypertension, 1.5% of asthma and 0.5% of diabetes was reported.

A large percentage of NCDs are preventable through the reduction of the four main shared behavioral risk factors: tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets (referred to as modifiable risk factors). Up to 80% of heart disease, stroke, and type 2 diabetes and about 40% of cancers could be prevented by controlling these risk factors. These behavioral risk factors subsequently lead to more formidable biochemical risk factors, called 'intermediate risk factors' including raised blood pressure, raised blood glucose, raised blood lipids and overweight and obesity. Biological risk factors also play a major role as a cause of chronic illnesses. The most prominent ones are viral infections from hepatitis B and C eventually leading to hepatocellular carcinoma (cancer of the liver). Hepatocellular carcinoma is the fifth commonest solid tumor among the global population including in Ethiopia.

A report compiled by the EPHA in 2012 indicated that the four behavioral risk factors (physical inactivity, inadequate intake of fruits and vegetables, alcohol consumption and cigarette smoking) were widely prevalent in Ethiopia. Similarly, high prevalence is reported for overweight, obesity and associated raised blood pressure in urban areas. Mental and behavioral disorders, substance abuse/misuse, violence and injuries (including road traffic accidents) are some of the health and health-related problems that also need both urgent and proper public health intervention.

The burden of chronic diseases is increasing in low and middle-income countries, where it constitutes a multiple burden along with communicable diseases, maternal and perinatal conditions and nutritional problems.

Cognizant of the growing burden of non-communicable diseases, the Ministry of Health has developed a comprehensive prevention and control strategic action plan of NCDs and their risk factors focusing on reduction of risky behaviors. The major NCDs that are being considered include cardiovascular diseases, diabetes mellitus, cancer, respiratory problems, injuries and mental health. Prevention and control of the common risk factors namely; physical inactivity, unhealthy diet, alcohol consumption and cigarette smoking are given due emphasis. Efforts are being made to establish cancer treatment centers in a few of the university hospitals.

Preliminary report of ESPA+ indicated that about three-quarters of all health facilities (excluding health posts) offer services for chronic respiratory diseases (76 %) and services for cardiovascular diseases (73 %). Six out of every ten health facility, excluding health posts, offer services for diabetes and chronic renal diseases.

Services for mental illnesses and cancer diseases were the least frequent, available only in a third (32 %) and less than a quarter (23 %) respectively in all facilities excluding health posts. Government facilities are more likely to provide these two services (41 % for mental illness and 29 % for cancer diseases).

3.2.4.6. Mental Health

In Ethiopia, mental illnesses are the leading non-communicable disorders in terms of burden. Indeed, in predominantly rural areas of Ethiopia, mental illness comprised 11% of the total burden of disease, with schizophrenia and depression being among the top ten most burdensome conditions (National Mental Health Strategy-MoH, 2012). According to the 2010 report of the Ethiopia mhGAP working group, childhood mental illnesses and depression are among the leading mental health burden of the health sector with prevalence rates of 12-25% and 5% respectively. Moreover, problems related to alcohol and substance use, epilepsy, schizophrenia and bipolar disorder affect 0.5 to 1.5% of the population. These conditions are the main contributors for compromising quality of life and productivity, as evidenced by the WHO 2010 report.

3.2.4.7. Injuries

According to the 2013 WHO's Global Status Report on Road Safety, Ethiopia has reported 2,581 fatalities with 377,943 registered vehicles (Global Status Report on Road Safety-WHO, 2013). This translates to 68.3 deaths per 10,000 vehicles. The report estimated that there are 18 estimated road traffic deaths per 100 000 population translating to more than 15,000 road traffic deaths annually. Moreover, less than 10% of the seriously injured transported by ambulance and 5.5% are permanently disabled due to road traffic crashes. The World Health Organization estimated a homicidal rate of 8 per 100,000 populations in its 2014 Global Status Report on homicidal prevention (> 7000 deaths annually).

3.2.4.8. Neglected Tropical Diseases - NTDs

A sizable number of people in the country suffer from eight neglected tropical diseases among the seventeen NTDs identified globally by WHO. Most of the districts in the country are endemic for three or more NTDs.

At present, Ethiopia is among the four countries in the world with **Dracunculiasis** (also known as Guinea worm disease) though on the verge of eradicating it. Indigenous transmission has been interrupted in South Omo since 2001. Although there were seven cases reported from five villages in three woredas in 2013 (WHO, 2015) and 3 cases in 2014 in Gambella region, no case has been recorded thus far in 2015.

Ethiopia has one of the highest prevalence of **active trachoma** which remains one of the major health problems, and **a leading cause of blindness,** in the country. The trachoma survey carried out by the Global Trachoma Mapping Project (GTMP) in 2013 revealed that trachoma is endemic in 604 rural woredas with 73,164,159 people being at risk of infection. The risk of blinding trachoma is greater in women than in men and impedes daily activities even when they do not have significant visual impairment or blindness. Ethiopia is implementing the SAFE strategy recommended by WHO and the annual TT surgery is steadily increasing from 15,000 in 2001 to over 140,000 surgeries per year in 2012 and 2013 respectively.

Onchocerciasis, also called 'river blindness', is a major cause of blindness in many African countries. Rapid Epidemiological Mapping of Onchocerciasis (REMO) conducted since 2011 showed that the western zones of Oromia and SNNP, the northwestern areas of Amhara and large parts of Gambella and Benishangul-Gumuz regions to be hyper- and meso-endemic for Onchocerciasis. It is estimated that 15.7 million people are at risk of infection in 179 districts in the aforementioned regions. In 2012, the country moved from a control strategy to nationwide elimination and aims to achieve certification of onchocerciasis elimination by 2020.

Lymphatic filariasis (LF) is one of the most debilitating and disfiguring scourges among all diseases. It is the second leading cause of disability worldwide. According to the integrated national mapping of LF and podoconiosis in 2013, the disease is endemic in six regional states (Amhara, Oromia, Benishangul-Gumuz, SNNP, Gambella and Tigray). It is estimated that about 10 million people in 109 districts are at risk of infection. Thus far, 42 districts started mass drug administration (MDA) from which five have completed five rounds while 16 districts completed three rounds of treatment.

Soil-transmitted helminthes are among the most common infections worldwide and affect the poorest and most deprived communities. Soil-transmitted helminthes (STH) are widespread in Ethiopia but with a varied prevalence rate between geographical areas, which exceeds over 85% in some districts. National mapping conducted in 2013 identified 297 districts as endemic for **schistosomiasis** with 9.9 million school-aged children requiring treatment. It is estimated that at least 45 million people live in schistosomiasis endemic areas. Previous efforts in de-worming school age children in Mekele, Addis Ababa and Ziway enabled a decrease in schistosomiasis prevalence from 44.7% to 12.3%. Hence, Ethiopia is exerting efforts to eliminate schistosomiasis to a level where it is no longer a public health problem by 2020. This, however, requires repeated treatment of at least 75% of school-aged children.

It is estimated that up to three million cases of **podoconiosis** exist in Ethiopia. In 2013, the national integrated mapping of podoconiosis and lymphatic filariasis was completed and revealed an estimated national prevalence of podoconiosis at 4.0%. Nonetheless, the prevalence ranges between 0.8% and 8.6% among the regions. All in all, 345 woredas were found to have podoconiosis prevalence of >1% (Derebe K et.al, 2015).

Ethiopia is one of the six countries in which over 90% of global Visceral **Leishmaniasis** (VL), often called kala-azar, cases occur and one of the ten countries with the highest estimated case counts, which together account for 70% to 75% of global estimated VL incidence (WHO, 2015). Both Cutaneous Leishmaniasis (CL) and VL remain among the

major public health concern in the country, with endemic areas that are continually increasing. VL, the fatal form of the disease, is endemic in 40 districts of five administrative regional states. It is highly endemic in the arid lowlands of Amhara and Tigray regions (MoH/WHO Report, 2010). In addition, Somali, SNNP and Oromia regions are also affected. It is predicted that over three million people are at risk of visceral leishmaniasis with an estimated annual incidence of 2,500 to 4,000 cases where all are caused by Leishmaniadonovani (NTD strategy-MoH, 2013). Although the true burden and distribution of Cutaneous Leishmaniasis (CL) is not well known, it is believed that 170 districts are endemic with confirmed endemicity in 80 of them (NTD strategy-MoH, 2013).

3.2.4.9. Eye Health

In Ethiopia, the prevalence of blindness and low vision are one of the highest in Sub-Saharan Africa. Ethiopia, with over 3% of the global blindness burden carries disproportionately high burden of blindness and low vision. According to the EFY 2005/6 National Survey on Blindness, Low Vision and Trachoma, the prevalence of blindness was 1.6% and low vision 3.7% respectively, which represents one of the highest prevalence rates in the world. However, it is estimated that about 90% of the blindness in Ethiopia is avoidable.

The main causes of blindness in Ethiopia show that cataract is responsible for 49.9% of the blindness, Trachoma (11.5%), other Corneal Opacities (7.8%), Refractive Errors (7.8%) and Glaucoma (5.2%). Similarly, the major causes of low vision were: cataract (42.3%), Refractive Errors 33.4% and Trachoma 7.7%. Subsequently, there are about 638,720 blind people and an additional 1,252,080 people with low vision due to cataract; 147,200 blind people due to trachoma, more than 50,000 are blind due to glaucoma and 988,640 people have low vision due to refractive errors.

Ethiopia was among the first countries in Sub Saharan Africa to have developed a national VISION 2020 Plan and to have established a National Committee for Prevention of Blindness (NCPB), which is led by the Ministry of Health and includes all relevant stakeholders working in the eye health sector in the country.

2.3.5. Hygiene and environmental sanitation

The Health Extension Programme is one of the government's primary vehicles to drive the improvement of sanitation at kebele level. Of the 16 packages, seven cover hygiene and environmental sanitation: excreta disposal, solid and liquid waste disposal, water quality control, food hygiene, proper housing, vector control (arthropods and rodent control), personal hygiene, health education and promotion.

The Integrated Urban Sanitation and Hygiene Strategy (IUSH), a ten year strategic plan, is near completion and covers Ethiopian cities' and towns' liquid and solid waste management, industrial waste management, institutional sanitation and drainage system.

As the result of concerted effort, Ethiopia has met MDG goal 7c of improving access to safe drinking water to 57% of the population (from 1990 estimate of 14%) and made some progress towards access to basic sanitation by reaching 28% of the population in 2014, up from a 3% baseline (1990). Reducing the contamination of household water supply has led to a reduction in diarrhea prevalence for children under 5 years from 23.6% in 2000 to 13% in 2011 (EDHS, 2005, 2011). According to EDHS 2011, Diarrhea prevalence is highest among children residing in households that drink from unprotected wells (18 percent),

those residing in rural areas (14 percent) and children residing in Benishangul-Gumuz and Gambela (both 23 percent). The survey indicated that more than half of households in Ethiopia (54 percent) have access to an improved source of drinking water. However, only 8 percent of households have an improved toilet facility, not shared with other households. About 82.2% of households included in EDHS 2011 have non-improved sanitation facility. This is in line with the administrative report of the MoH that reported a cumulative number of households with latrines reached 15,645,216 at the end of EFY 2005, with coverage of 86.1% (short of the 92% target set for the year). A total of 3,655 kebeles were declared to be Open Defecation Free (ODF) in EFY 2006. Though there is a promising trend in improving access to basic sanitation, it is high time to focus on improving the number of latrines available and maintaining their functionality.

3.2.6. The unfinished agenda to further improve health status

Though good trends are observed in health related MDGs, the number of citizens who are dying from preventable and avoidable causes is still high compared to the global average. A considerable number of children and mothers are still dying due to failure to reach them with high impact interventions. The proportion of stunted children remains high with only a slight decline which exposes the nation to trans-generational consequences for intellectual and physical development. Even though encouraging results are witnessed in diseases targeted for global elimination and eradication, incidences happen in some parts of the country, indicative of the need to persistently exert efforts in all parts of the country. It is also necessary to study impacts of non-communicable diseases and intervene at a national scale as some studies are showing an increasing burden. Neglected tropical diseases remain a challenge to the health sector, compromising quality of life and productivity.

3.3. Processes and Inputs

3.3.1. Health Extension Program

Ethiopia's Health Extension Programme (HEP) is a community based strategy to deliver health promotion, disease prevention and selected curative health services at the community level. It is a mechanism to provide health service in an equitable manner to all segment of population in the country. The services are provided free of charge. The HEP has 16 health packages categorized into four major components. The four major areas are: promotion of hygiene and environmental sanitation; prevention and control of major communicable diseases; promoting and providing family health services and health education and communication. Impressive achievement has been made in scaling up HEP in rural areas. The health extension programme improves the utilization of health services by linking community and health facilities, particularly health centers. The health extension programme supported by an organized and functioning health development army significantly improves access and utilization of key health interventions.

The priority areas of HEP for HSDP IV were scaling up of urban and pastoralist health extension program, maintaining and improving the quality of rural health extension program and organization of health development army.

Thus far, more than 38,000 HEWs have been trained and deployed in agrarian, pastoralist and urban areas. Tremendous gains have been made in the last decade in improving access and utilization of latrines; increasing contraceptive acceptance rate; antenatal care

(ANC); assisted delivery; improved health seeking behavior; expanded vaccination services; malaria control and prevention and reduction of new HIV infection. Moreover, HEWs have also started treating common childhood diseases, including pneumonia and severe acute mal-nutrition.

Nevertheless, demand for quality and wide scope of services from HEP is also growing among communities. As literacy and socioeconomic situation improves, the demand for quality services is also increasing. To satisfy the increasing demand of the community, HEW's knowledge and skills need to be improved. The MoH is working to improve the skills and competency of HEWs through integrated refresher in-service training and upgrading of HEWs to at least level 4 (diploma). However, there is high turnover rate of HEWs in some places. Additionally, some health posts need to be rehabilitated. Revisiting the HEP in the coming years is critical to sustain the gains made so far and address the needs of the community. Besides training of HEWs to achieve the next higher level, creating mechanism for retaining them and improving health posts accordingly are among the issues that need to be addressed in the subsequent strategy.

The HEWs are playing a pivotal role in the process of establishing community ownership through creating systematic and organized popular mobilization called the Health Development Army (HDA) with the spirit of solidarity to create healthy and productive communities.

3.3.2. Process of improving quality and access to health services

3.3.2.1. Processes for improving access

Remarkable progress has been made in improving access to primary health care units through massive expansion of health centers and health posts as well as deployment of low and mid-level health workforce. However, available per capita measures of outpatient visits and hospital admission reports indicate low service utilization compared to the expansion of health facilities within accessible distance.

According to the HSDPs, the health service delivery is organized at household/family, community and health facility level to improve access to and utilization of services aimed at:

- Community ownership and positive health practices;
- Improve maternal, neonatal, child, adolescent and youth health nutrition;
- Hygiene and environmental sanitation (WASH); and
- Combat HIV/AIDS, TB and Malaria and other communicable and non-communicable diseases.

To attain the above strategic objectives, emphasis was given to strengthening primary health care units (PHCUs) with strong community based placement of the health extension programme. Essential health service packages (EHSP) were identified to clearly set priority health interventions that need to be made available to the majority of the population. Though sub-optimal in implementation, PHCUs are linked with hospitals based on a referral networking system. According to ESPA+, availability of basic maternal and child health services, family planning services and services for sexually transmitted diseases, both individually and as a package, are more than 80% in the majority of health facilities.

3.3.2.2 Improve the Quality of Service Delivery

HSDP IV integrated the need to improve the quality of health service delivery by health facilities across the country, which has increased the Customer Satisfaction Index during its period. The Hospital Reform agenda, with well-defined quality standards has been developed. Among the 124 standards contained in the Ethiopian Hospital Reform Implementation Guidelines (EHRIG), eight are on quality management and improvement. The national average EHRIG attainment in EFY 2006 was 76%. The hospital reform has brought positive improvements, including reduced waiting time to 52 minutes and reduced institutional mortality rate to 4%. The bed occupancy, average waiting time for surgery and patient satisfaction showed improvement in EFY 2006 to 75%, 10 days and 77% respectively.

The Ethiopian Hospitals Alliance for Quality (EHAQ) has been established in EFY 2004, with the aim of sharing experiences among lead and general member hospitals for quality improvement. In EFY 2006, the patient satisfaction cycle of EHAQ was closed, following the achievement of its goal, and a new cycle for promoting quality in maternal, neonatal and child health services, including reform implementation was started. At the closing of the patient satisfaction cycle, the best performing public institutions (6 lead hospitals, 3 clusters, 11 general member hospitals, 2 hospitals, and one RHB) were awarded, after being evaluated through a transparent data driven approach. A similar reform and quality alliance needs to be implemented for health centers.

Blood and transfusion safety: For over thirty years, the blood transfusion services in the country were provided through the Ethiopian Red Cross Society and blood collections by individual hospitals. The service was unable to meet patients' need for adequate and safe blood supply. In order to strengthen the provision of blood transfusion services, a significant management reform took place, with transfer of the overall management of blood transfusion services from the Ethiopian Red Cross to the government. More than half of the hospitals are now accessing safe blood from the National Blood Transfusion Service (NBTS) and its networks. The contribution of voluntary blood donation has reached 63%. In EFY 2006, the number of functional regional blood banks increased from 12 to 25, with a total of 30 mobile teams collecting blood from the communities on a daily basis. These blood banks are strategically located to supply safe blood to all government and non-government health facilities within 150-200 km radius of their catchment areas. Currently, the proportion of health facilities accessing safe blood and blood products from the NBTS and its network increased to 52%. In EFY 2006, the NBTS collected 87,685 units of blood, a 46% increase from 60,090 in the previous year.

Recent decision by the cabinet to establish the National Blood Transfusion Service as an autonomous body have already created a favorable environment and will create additional opportunities to improve the coverage and quality of service. However, the changes in the management of the blood transfusion services have also created additional pressure to an already existing human resource capacity challenges.

To improve the quality of emergency services in Ethiopian public hospitals, a number of initiatives were implemented such as: (i) ambulance procurement, distribution and utilization; (ii) establishment of emergency command post; (iii) provision of training on basic and advanced life support; and (iv) strengthening of specialty care such as intensive care units, burn services, and trauma care services.

A number of endeavors are taking place in improving emergency care. In addition to provision of important trainings on basic life support, a total of 450 ambulances have been distributed in EFY 2006, reaching a cumulative total of 1,262 ambulances. Moreover,

different guidelines, such as Ambulance Management Guidelines, First Aid Guidelines, Intensive Care Unit Establishment Guidelines and Liaison Services Manuals, have been prepared. Efforts are also being made to improve the emergency medical system in Addis Ababa with an Emergency Services Strengthening Project, with AA City Administration, to establish a city-wide coordination mechanism.

The Auditable Pharmacy Transactions and Services (APTS) Initiative is underway to improve the quality of pharmacy services in high volume hospitals. Through APTS, hospitals have established evidence-based, transparent and accountable pharmaceutical services and financial transactions. Moreover, the pharmaceutical services have become auditable, therefore, reducing wastages of medicines through expiry dates as well as, improving rational drug use. Currently, more than 30 hospitals from different regions have been implementing APTS with encouraging results.

According to the WHO laboratory quality ranking, every laboratory system is expected to fulfill the five levels of laboratory quality standards, ranging from one to five. As part of this quality standard mechanism, laboratories are participating in Strengthening Laboratory Management Towards Accreditation (SLMTA) trainings. Similarly, one laboratory participated in external quality control managed by international experts while 22 laboratories participated in national laboratory quality control and standard assessment. About 156 laboratories have participated in Quality Control activities through provision of quality control samples (regarding chemistry and haematology, DNA PCR, viral load and TB culture) as part of the on-going laboratory quality assurance mechanism.

The MoH launched national maternal death surveillance and response (MDSR) system in May 2013 as one tool of improving the quality of maternal health care and particularly care during pregnancy, child birth and the post-partum period..

Despite improved access and quality improvement efforts, the utilization of health services remains below 0.4 OPD visit per capita per year. In EFY 2006, a total of 30,927,623 OPD visits were provided with an average of 0.35 OPD visit per person per year; this achievement was slightly higher than the performance in EFY 2005 (0.34 OPD visit per person per year). Improving the quality of health services will remain a major area of focus in the years to come, including strengthening of emergency and referral services; enhancing diagnostic services; effective coverage of high impact interventions and follow-up on the adherence to standards.

3.3.2.3 Establishment and Operationalization of Facility Governing Bodies

The establishment of governing boards is a hallmark of health facility autonomy. Supervision reports indicate that all hospitals and 93.3% of HCs have established governing boards. The establishment of governing boards enhances efficient decision-making by cutting bureaucratic chains as well as the responsiveness of health institutions to their local communities. The Facility Governing Boards approve the health facility plan and budget, decide on revenue retention and utilization, review implementation of the new fee waiver system and evaluate performance of health facilities, among other duties. Additionally, governing boards enable health facilities to advocate for more resources and implement innovative income generating activities that could be used to improve the quality of services.

As per the legal framework for the health service delivery administration, governance and management, health facilities shall be administered by a joint governing board

established with representation from the community, health institutions' staff, and other government offices. Therefore, among the 3,351 health facilities which are under the reform (125 hospitals and 3,226 HCs), 3,103 health facilities (123 hospitals and 2,980 HCs) have established governing boards, most of whom were functional in EFY 2006. Nearly 52% of hospitals and 48.5 percent of health centers' governing boards meet every month. Moreover, 97 percent of hospitals and 75 percent of the health centers confirmed that their respective governing boards approved their expenditures in 2010/11. Of these, all hospitals and 61 percent of the health centers indicated that their governing boards submitted a facility budget to their respective RHBs/WoHOs. Additionally, nearly 90 percent of hospitals and 58 percent of the health centers reported that their retained revenue utilization plan was approved by their respective councils.

3.3.3. Public Health Emergency Preparedness and Response

The health system is expected to cope with existing and emerging disease epidemics, acute malnutrition, and natural disasters of national and international concern. The Ethiopian Public Health Institute (EPHI) has established a Public Health Emergency Management (PHEM) system since 2009 which is the responsible body for PHEM activities in the country.

The PHEM center provides laboratory support to public health emergencies in the identification of diseases or other emergency conditions. Integrated disease surveillance and response (IDSR) - a WHO regional strategy - is being implemented at all levels. Twenty immediate and weekly reportable diseases are known at all levels.

A total of 2,217 public health emergency rumors were communicated to the EPHI in EFY 2006 and confirmed within three hours, with only 31 (1.4%) of them were identified as real public health emergencies for whom appropriate responses were undertaken. Ninety percent of public health epidemic cases had laboratory confirmation and 80% of them were confirmed as important emergency and public health cases.

The implementation of the International Health Regulations (IHR) is well underway in accordance with WHO's recommendations. Recent assessment of IHR implementation has been conducted indicating that the country is on the right track to comply with regulations. The preparation and readiness to potential threat of Ebola is commendable, including setting up a laboratory within a short period.

The PHEM system has some areas for improvement, including the multi-sectoral coordination apart from food security. Delays in sharing reports or notifying reportable diseases need to be improved. At Woreda level the capacity for preparedness is limited due to lack of clear planning and insufficient budget allocated for emergencies. Communication is still a challenge, particularly in most remote districts which tend to also be the mostly affected Woredas in emergencies. The lack of transport resources in most Woredas limits the response capacity for emergencies.

3.3.4. Health Information System

The health information system requires managing the health information through health management information system (HMIS), research and development (R&D) and knowledge management (KM).

The Ethiopian Health Management Information System (HMIS) has been implemented since 2008 to capture and provide core monitor-able indicators used to improve the provision of health services, and ultimately, to improve health status of the population. Since then, the

health sector showed significant achievements in planning, budgeting, decentralization, review of plans and progress, involvement of partners and utilising information in decision making. HMIS is a major source of information for monitoring and adjusting policy implementation and resource use. At the end of EFY 2005, 122 (98%) public hospitals and 2697 (87%) health centers implemented HMIS. On average, 72% of source documents were available during the third round of Routine Data Quality Assessment (RDQA). From available source documents, nearly 6 out of 10 were completely recorded. Around half (54%) of health facilities recording dates fall under the national or regional standard. On average, a fulltime HMIS focal person was assigned in 61.7% of facilities. Of them 25.7 were health information & technology (HIT) graduates (MoH-RDQA, 2014).

HMIS reports are being used for varied decision making processes including Woreda Based Planning (WBP) which is now the formal planning process in most regions. Planning is taking place at different levels, and involving more stakeholders such as; the head of health centers, community representatives, NGOs, community leaders, administrative leaders and development partners. There are various positive impacts of the WBP process, such as increased ownership, growing participation and collaboration at different levels. WBP has contributed to the alignment and harmonization of the planning, budgeting, resource allocation, prioritization, tracking and reporting systems.

Research activities are conducted by several research institutions including EPHI. Research and development has, however, been hampered by an uncoordinated priority setting of the research agenda, inadequate funding, shortage of human resources and inadequate logistics. Other challenges include the lack of a national database for accomplished research, hence rendering it difficult to access and limiting translation of research findings into policy. Additionally, there is little collaboration amongst different research institutions, sub optimal publications in reputable journals and poor linkage between research and formulation of policy and strategy.

Knowledge management is similarly lacking in the health sector. Knowledge management (KM) is the systematic management of an organization's knowledge assets for the purpose of creating value and meeting tactical and strategic requirements. It consists of the initiatives, processes, strategies, and systems that sustain and enhance the storage, assessment, sharing, refinement, and creation of knowledge. Knowledge management, therefore, implies a strong tie to organizational goals and strategy, and it involves the management of knowledge that is useful for some purpose and which creates value for the organization. Little emphasis has been given to KM so far, evidenced by loss of institutional memory or tracing documentation in major undertakings.

The recently established Vital Event Registration Agency (VERA) is an opportunity to strengthen health information system.

3.3.5. Health workforce

Having adequate numbers and mix of motivated and skilled human resources are essential at all levels of the health system.

3.3.5.1. Pre-service Education

The health workforce density in Ethiopia has increased from 0.84 to 1.3 per 1000 population between 2008 and 2013, indicative of an improvement in supply and availability

of health workers. However, the doctor, health officer, nurse and midwife to population ratio is 0.7 per 1000 population, far behind the minimum threshold of 2.3 doctor, nurse and midwife to 1000 population ratio required to ensure high coverage with essential health interventions (revised HRH strategy-MoH, 2014). The marked improvement in the availability of health workers is due to massive scale up of training and education in the last two decades. The number of public higher educational institutions have increased from eight to 57. Of these, 34 are universities and hospital-based colleges offering degree programs while 23 are regional health science colleges offering technical and vocational qualifications (level 1 to 5). Private health science colleges have also flourished, with 24 institutions offering accredited programs as of 2012/2013. Specifically, the number of medical schools has risen to 33 (of which 5 are private) and public midwifery schools have reached 49. There has also been parallel expansion in enrollment and graduation outputs. Over sixty thousand health science students were enrolled in public higher education institutions; and an additional 15,834 in private higher educational institutions as of 2012/2013. Annual enrollment of health science students in public higher educational institutions reached close to 23,000 (58 % in regional health science colleges) in 2014. Additionally, the annual intake of medical students rose by more than 2-fold from 1,462 in 2008 to 3,417 in 2014. Graduation output from higher educational institutions has increased close to 16-fold from 1,041 in 1999/2000 to 16,017 by 2012/2013. (MOE, 2014; MoH 2013; Jhpiego, 2014).

Ethiopia is on track in scaling up the quantity of health workers trained. However, capacity and readiness of higher educational institutions to assure quality of education has not developed proportionally. Mechanisms of competency tests have not yet matured to ensure students are graduating with essential competencies for safe and effective practice. Internal quality assurance systems for education of health workers are sub-optimal. Educational infrastructure and resources, particularly those required for skills learning are deficient. There is shortage of suitably qualified faculty, with the gap most severe in private health science colleges. Students do not have sufficient practical learning opportunities. Curricula are expected to shift from traditional, static, less practice-oriented approach to 21st century skills like creativity, critical thinking, problem-solving, collaboration, communication, ICT and cultural competency. Ethics, professionalism, and public health competencies are also not well integrated. There is also dissatisfaction with student motivation and preparation upon entry to health training programs (HERQA, Jhpiego 2012, PHSP 2014).

The Government of Ethiopia allocates up to 4.6% of its GDP, which is one of the largest in Africa, on education. However, most of it is capital budget, with limited resources available to enhance the core mission of quality and relevance of higher education

3.3.5.2. Continuing professional development and in-service training

Even though there are guidelines and directives regarding continuing professional development (CPD) and in-service training in the health sector, enforcement has yet to begin. Local capacity to develop, offer, enforce, monitor and evaluate relevant and quality CPD activities is under-developed. CPD is not yet linked to re-licensure and career progression. Some in-service trainings are not always need-based, well-planned, coordinated, quality assured, monitored and evaluated for their effectiveness. IST is mostly face-to-face and group based with limited use of innovative and efficient in-service training modalities like on-the-job training, and blended learning approaches.

3.3.5.3. Human Resource Regulation

Comprehensive, effective, efficient and fair human resources for health (HRH) regulation ensures public protection and improves quality of health care. All higher educational institutions need to be subjected to accreditation requirements. However, there are some irregularities in implementing standards in the same way in all institutions. The MoH, professional associations and other relevant entities need to be capacitated to be actively involved in accreditation of institutions training health workers. There is a need to have standard licensing, qualification or exit exam for health professionals graduating from university programs. There are concerns about validity and consistent implementation of certificate of competence assessment for low and mid-level healthcare providers. There is a need to put structures and processes in place to review ethics and competence of health workers at facility, district and regional levels.

3.3.5.4. Human Resources for Health Management

Ethiopia has major HRH management challenges including shortage, urban/rural and regional disparities, poor motivation, retention and performance. Human resource management is sub optimal as modern HRM concepts and practices are lacking and HR functions are generally limited to traditional personnel administration tasks. Due to limited efforts to modernize HR functions as a strategic resource in the health sector, there is limited investment into HRM capacity development as evidenced by limited technical skills and experience of existing HR staff in HRM and leadership, inadequate HR structure and staffing at all levels, limited capacity and practices in strategic and operational HR planning and budgeting. Human resources information system (HRIS) is not fully functional to support HR planning and development, supportive supervision, performance monitoring and improvement. There are also major gaps in performance management and accountability where strong system and practices are required to link performance planning/goal setting with monitoring and improvement and regular performance appraisal, rewards/sanctions and professional development needs.

3.3.6. Pharmaceuticals Supply Chain and Logistics Management

Cognizant of the pivotal role of pharmaceuticals and other health care technologies, the GoE established an agency called Pharmaceutical Fund and Supply Agency (PFSA) and the supply management of pharmaceuticals in the country has shown significant progress especially during HSDP IV. The Integrated Pharmaceuticals Logistics System (IPLS) was implemented in 2010 to integrate the supply management of pharmaceuticals and the Revolving Drug Fund (RDF). At each level, the system provides accurate and timely data for decision-making where product related information flows up from health facilities to the Agency whereas products flow from the Agency down to health facilities every two months.

Routine monitoring reports show that IPLS is improving information recording and reporting, storage and distribution systems, as well as the availability of essential commodities at service delivery points (SDPs). The national survey conducted in January 2014 on IPLS to measure system performance at public health facilities (hospitals, health centers and health posts) indicated that the system significantly improved the availability of essential pharmaceuticals at health facilities. The average availability of essential tracer medicines at health facilities on the day of visit was 89%. The Agency's target for HSDP IV in this regard was to increase the availability of essential pharmaceuticals from 65% to 100%. Average

availability of the tracer pharmaceuticals during six months prior to the study was 78.1%. This is an indication of the improvement in the availability of essential pharmaceuticals at public health facilities providing primary and secondary level of care.

On the other hand, assessment made in 17 Federal and Addis Ababa City Government hospitals, which are supposed to give tertiary level of care, revealed that the availability of key medicines varies significantly among hospitals. The performance of both public and private importers in supplying medicines in response to hospital requests was poor (44.7%). The availability of key medicines at the dispensaries of these hospitals at the time of visit ranged from 33.3% to 100%. This shows the need to work hard to ensure the continuous availability of needed pharmaceuticals at these referral hospitals, including pharmaceuticals used for the management of non-communicable diseases (NCD).

With the aim of improving the continuous availability of health commodities at an affordable price in a sustainable manner, the sector's capacity in procuring and distributing pharmaceuticals, medical supplies, laboratory reagents, and equipment through the Revolving Drug Fund (RDF) and various programs has increased significantly. The capacity of local pharmaceutical manufacturers has also increased as a result of instituting various incentive packages. Overall, local manufacturers are covering 20% of the local pharmaceuticals demand of the country. However, procurement lead time for some pharmaceuticals and medical equipment is still long due to various reasons and equipment installation and maintenance issues are not yet properly addressed. The Agency's annual distribution capacity has increased from 2.74 Billion ETB in 2003 EFY to 12.10 Billion ETB in 2007 EFY. There has been also expansion in modern infrastructure. Seventeen modern warehouses are almost completed which has raised the national storage capacity from 46,260 m3 to 531,000 m3 and the cold chain storage capacity from 50 m3 to 800 m3.

The Agency has also increased its distribution capacity by making heavy load and medium trucks available, including trucks with cold chain facilities. Every other month, antiretroviral and TB medicines are delivered directly to all hospitals and some health centers. Although there is improvement in number of delivery vehicles, direct distribution of these pharmaceuticals to remaining health centers and health posts is not possible due to limited capacity, and the distribution is done through Woredas/Sub-cities. There is also serious shortage of vehicles to distribute pharmaceuticals from health centers to health posts as per the IPLS, which is affecting the delivery of health services. The delivery of vaccines in an integrated way was piloted at three of the Agency's Branches – Mekele, Bahir Dar and Jimma and the system will be implemented in all branches as of July 2015. The integration of malaria products into the IPLS has been in progress and will be effected as of July 2015 in all branches of the Agency. The long-term plan is to directly deliver all pharmaceuticals in an integrated manner to all public health facilities every two months based on demand.

Various capacity building activities have been undertaken to enable health facilities to forecast their pharmaceuticals demand. As a result of this effort, many health facilities are able to develop their own list of medicines, quantify their demand and submit annual pharmaceuticals demand to the Agency for pooled procurement at the national level. Though this is enabling the Agency to base its procurement on health facilities demand, there are still problems in record-keeping, forecasted data quality, timely requisition and consumption reporting. The gap in the existing automated logistics management information system (LMIS) is that it doesn't link the Agency's head office with branches and health facilities at other levels who handle/monitor supply of pharmaceuticals to have real-time stock status information at the national level. Therefore, there is a need to have a robust pharmaceuticals information management system that will provide forecasting, procurement, inventory management, human resource and finance related information.

Wastage of pharmaceuticals due to expiry, theft, damage, etc is known to be decreasing as a result of the implementation of IPLS and Auditable Pharmaceuticals Transactions and Services (APTS) at health facilities. Currently, there is a huge gap in recording and existing documentation is unfit for use at health facilities. The proper implementation of IPLS and APTS is expected to alleviate such issues.

Establishing and strengthening Drug and Therapeutics Committees (DTC) at health facilities has long been one of the capacity building focus areas so as to improve the supply management and rational use of medicines at health facilities. The national survey conducted in August 2013 to assess the performance of DTCs at public hospitals showed that most hospitals have established DTCs. However, the functionality of the committees varies significantly from hospital to hospital. Functional DTCs were able to develop medicines list for hospitals, undertake drug use studies, improve rational prescribing, dispensing and patient utilization, develop manual on supply management and use of medicines and establish and strengthen drug information services. Hospitals have reported increased availability of medicines, reduced wastage, improved use of medicines and budget utilization as a result of DTCs. Inadequate follow-up and support, lack of performance monitoring and evaluation system, training gaps, and staff turnover were the major challenges identified for DTC performance. There is a lot to be done so as to fully exploit the potential benefits of health facility DTCs.

The other major initiative implemented during this period was the launching of clinical pharmacy service at selected hospitals in the country through short-term training in collaboration with universities. The effort being made in establishing and strengthening clinical pharmacy service for inpatients and chronic outpatients has to be continued as a key means of ensuring rational drug use thereby improving the quality of health care.

3.3.7. Infrastructure and ICT

The health center expansion has enabled the sector to enhance access to services for programs. While access to services has improved to almost 100% as of EFY 2007, health facilities still struggle to provide some of the priority services, such as deliveries, in a manner that attracts mothers and other patients. In EFY 2007, there were a cumulative number of 16,440 HPs, 3,547 health centers and 311 hospitals (including private) available.

HSDP IV's strategic objective on ICT use in the health sector focused on tele-education, telemedicine and electronic health management information system (eHMIS) and Electronic Medical Records (EMR). Much of the ICT contributions are expected to be seen in the years to come as preparatory activities consumed much of the time in HSDP IV. Health technology management, including medical equipment maintenance, is among areas that need to be build on in the coming strategies.

According to preliminary Ethiopian Service Provision Assessment (ESPA+), about half of health facilities have regular electricity or has functional generator with fuel. About 88-100% of hospitals (public & private), 84% higher clinics, 61% lower clinics, 57% health centers and 29% of health posts have regular power sources. Over three-quarters of all health facilities (public and private) have an improved water source in their facility, including 71% of health centers and 49% of health posts. Over two-thirds of health facilities, including 70% of health posts, have access to emergency transport.

3.3.8. Health Care Financing

The National Health Accounts (NHA) showed that the total spending on health has been growing steadily. In 2010/11, it reached ETB 26.5 billion (US$ 1.64 billion) from ETB 11.1 billion (US$1.2 billion) in 2007/08. The fifth round NHA revealed that nominal total health spending on health grew by 138% in 2010/11 compared to the total budget estimated in the fourth round of the NHA in 2007/08. The fifth round of the NHA showed that the per capita health expenditure increased from US$ 16.10 in 2007/08 to US$ 21 in 2010/11. The per capita spending on health grew five-fold from US$4.07 in 1995/96, largely due to the aggressive efforts to mobilize international funding and implementation of the health care financing reform (HCFR) in the country. The reforms in HCF aim to increase health resources, protect the poor, and introduce equitable financing mechanisms. These reforms are now being implemented in the majority of the regions that have more than 80% of health facility coverage. However, the increment is short of HSDP IV target of increasing the total health budget from 16.1 USD/Capita to 32.2 USD per capita.

According to the NHA-V report (2010/2011), the share of health expenditure out of the country's Gross Domestic Product (GDP) reached 5.2%, which is a significant increment from the 4.5% in 2007/08 (MOFED, 2003 EFY). This is an acceptable level increment since it is above the WHO recommendation of a minimum of 5% of GDP spending on health. However, the share of total public sector health expenditure against the country's total government expenditure remains low; it reached 5.6% in 2010/11 which is a modest increment from its 5% share in 2007/08 (National Bank of Ethiopia, 2011).

According to the health sector reform, improving Retention and Use of Health Care Financing Reforms (HCFR) is one of the key financial mobilization strategies. HSDP IV has set a target of increasing the proportion of public health facilities retaining and using their revenue from 20% to 100%. Since the start of implementation of the HCFR, regions formulated proclamation, regulations, directives, and implementation manuals to align with the national strategy. It is being implemented in 2,241 health facilities (90 hospitals and 2,151 HCs) in seven regions (except Somali and Afar) and two city administrations.

The amount of retained revenue generated by health facilities varies from facility to facility and from region to region. On average health centers generated 30% of their total budget while hospitals generated 23% from retained revenue. Hospitals on average retained ETB 1.56 million per year, while HCs retained ETB 0.37 million. The retained revenue has improved the availability of essential medicines, diagnostic equipment and medical supplies. It is also used for renovation and expansions of rooms and staff housing. Additionally the health facilities were able to cover a significant proportion of their utility bills (HSDP Mid-Term Review, 2005 EFY).

There has been improvement over the last few years in government allocation for fee waivers to facilitate access. Total subsidy for the poor has reached more than 20 million Birr so far. The number of fee waiver beneficiaries has also reached 2 million. While this progress is encouraging, it constitutes less than 10% of the total population that lives below the poverty line in the country. Maternal and child health services (ANC, delivery, PNC and immunization etc) are among the exempted health services (HSDP Mid Term Review, 2005 EFY).

Outsourcing of non-clinical services in public hospitals is another core element of the HCFR to enable health facilities to focus on core business while improving efficiency in the system. Reports indicate that there is an increasing number of health facilities which outsourced none-clinical services to the private sector.

Private Wings in Public Health Facilities has shown a positive development, particularly in terms of reducing the attrition and absenteeism of health workers. At Federal level and in the Regions, public hospitals are allowed to open and run a private wing with the primary objective of improving health workers' retention, providing alternatives and choices to private health service users and generating additional income for health facilities. So far 31 private wings have been operationalized in five regions and in Federal Hospitals. The average number of patients served per quarter ranges from 50 to 2,916, with the overall average being 1,492 patients per quarter. Though the private wing arrangement is giving option to clients in accessing healthcare and retaining senior staff, the health sector needs to pay close attention to systematic monitoring, identification and tackling of hitches (HSDP Mid-Term Review, 2005 EFY)

Government's efforts to address the challenge of high out of pocket (OOP) spending during use of health services include the introduction of community-based health insurance (CBHI) and social health insurance (SHI) for the informal and formal segment of society respectively. HSDP IV sets a target of increasing the proportion of people enrolled in health insurance from 1% to 50% and to conduct a pilot test of CBHI in selected districts. The Ethiopian Health Insurance Agency (EHIA) has already been established and staffed. The agency is undertaking the necessary preconditions to kick start SHI. While this is a manifestation of the Government's commitment to accelerate the implementation of social protection in general and SHI in particular, there are crucial factors that are being looked into to improve readiness of the healthcare system to bear the potential demand created by launching SHI. CBHI schemes have been piloted in 13 districts in Amhara, Oromia, SNNP and Tigray Regional States. Regions have put in place the necessary administrative and coordination structures and provided trainings, periodic reviews and other resources. The introduction of CBHI and SHI is seen as a vehicle for progressing toward universal health care (UHC) in Ethiopia as envisaged by HSDP IV. Taking the lessons of the HCFR, the Health Care Financing Strategy being is revised in light of the recent developments in the health financing landscape (both within and outside the country) and evolving concept of UHC.

Contribution of development partners (DP) in the Health Sector

In EFY 2006, a total of USD 558.33 million was committed by development partners (DPs) and a total of USD 612.87 million (109.8%) was disbursed, which was above the amount disbursed in EFY 2005 (531.13 million). The Global Fund contributes to half of the DP budget while MDG pooled fund constitutes more than a third of DP's contribution managed by the government. There are other resources managed by the DP themselves which are difficult to account for in the government system of financial tracking.

The MDG Performance Fund (MDG PF) is a pooled funding mechanism managed by the MoH using GOE procedures. The Ethiopian International Health Partnership (IHP) Compact framework provides flexible resources, consistent with the 'One-plan, One-budget and One-Report" concept, to secure additional funding for the HSDP. It is one of the GOE's preferred modalities for scaling up DP assistance in support of the HSDP.

Joint Financing Arrangement (JFA) refers to the arrangement that sets out the jointly agreed terms and procedures for MDG PF management, including planning, financial management, governance framework and decision-making, reporting, review and evaluation, audit and supply chain management. As per the JFA, the MDG PF covers all program areas where there is a funding gap, with the exception of salaries or wages. However, the MDG PF has been used mostly to fund the procurement of public goods required for lower levels' health service delivery in the past five years.

In EFY 2006, three additional donors joined the MDG PF: (i) the World Bank through Program for Result (PforR); (ii) GAVI with its Health System Strengthening (HSS) Support; and (iii) the European Union (EU) through a new approach to channel the first three year fund (21 million Euro) through UNICEF to MDG PF in support of MCH programming. All these contributions will follow the management principles set out in the JFA. The EU has signed the JFA in EFY 2006, while the WB has yet to sign. The number of partners contributing to the MDG/PF has increased from six to 12 over the last three years. The amount of resources coming through the MDG/PF is also increasing year-on-year. This shows an increase of 7 % (from 35% to 42%) in channeling funds through the Government's preferred channel over the past three years.. This is a meaningful achievement both for the Government and DPs in improving harmonization in financing the health sector. Areas financed by the MDG/PF are also well aligned with the priorities of the health sector. Maternal health, equipping health facilities, child health and prevention and control of diseases are the top ranking areas for resource allocation.

Utilization of Resources

Significant improvements have been observed in the utilization of resources but more capacity needs to be built in at sub-national levels. HSDP IV set a target of increasing the ratio of health budget utilization to 90% and the engagement of the leadership at all levels of the health system to track resources and ensure liquidation has played a significant role. A commendable initiative in resource utilization and timely liquidation is the establishment of the Grant Management Unit (GMU) within the Finance Directorate of the MoH. The unit was created to solve the hurdle of delayed liquidation of significant amounts or resources both at national and sub-national levels. The unit aims to track both physical and financial performance of the sector, enhance liquidation of funds and improve coordination between DPs and the MoH.

IFMIS

Another key initiative in the sector is the Integrated Financial Management Information System (IFMIS) which aims to improve public finance management through improved evidence, integration and coordination. The system is fully electronic in design and expected to use a dedicated line in Woreda-net. It is a multi-sectoral initiative led by Ministry of Finance and Economic Development (MOFED) and the health sector has been chosen as one of the pilot sectors. The health sector IFMIS has been designed and is being implemented at MoH level but not yet scaled up to sub-national levels. The scaling up of IFMIS to sub-national levels has been delayed due to budgetary constraints.

3.3.9. Regulation

Improving health and health related regulatory system focuses on ensuring safety in the delivery of health services, products and practices as well as accreditation of professionals. Among the promising achievements during HSDP IV in health regulatory aspects were, a number of regulations, guidelines and standards that were developed.

The regulatory authority is being strengthened at different levels. Absence of uniformity of the health regulatory structure at regional and woreda level, low attention to health regulatory systems in some of the regions and focus on limited areas within the health regulatory system are some of the limitations observed in health and health related regulatory areas.

Although regulatory employees are deployed in the 15 ports for entry into /exit out of the country, there are indications that there are still unregulated inflow and outflow of medicines from Ethiopia. Similarly, the nature and range of food items are very diverse and given the difficulty to register all types of foods, it is high time to develop a strategy to register and regulate common food items that are frequently consumed and have significant public health impact. The regulatory authority conducts pre-license inspection and provides manufacturing permit for local food manufacturers but clear limitations are observed in assessing the safety and quality of foods prior to their entry into the Ethiopian market.

A new medicine registration strategy developed by studying other countries' experience in addressing emerging infectious and non-infectious diseases. Although the authority has a guideline and provides pre-import permit for donated medicines and medical equipment, ensuring the safety, efficacy and quality of such products remain a critical challenge.

The national quality control laboratory is furnished with different world class testing and analyzing devices. The laboratory is updated from time to time and is ISO 17025 certified for seven physicochemical tests including condom quality test. Although the initiative to strengthen branch offices' quality control laboratories is considered a positive development establishing mini-laboratories at each entry and exit ports has not yet started.

Ensuring of safety and quality of food items and medicines throughout the country is showing some improvement. However, the control of products at each entry and exit ports is mostly done by physical inspection without use of modern technologies. The entrance and distribution of illegal products results in loss of trust, even towards regulated products. Inspection and control of importers, exporters, distributors and retailers will in improve time. The initiation and attitude towards the control of illegal trade and conduct of post market-surveillance is considerably improved. However, the in spection process does not focus to ensure safety and quality of products which are frequently consumed by the public, and the post-market surveillance activities are limited to very few products. Emergency inspection has not been done regularly and randomly, especially to control illegal trades. Regulatory collaboration and integration among federal to region, region to region and region to woredas is poor. This creates a gap in the overall regulatory functions.

In order to stabilize rational use of medicines, a number of continuous trainings were provided by the authority responsible for promoting patient and health professional awareness of drug safety and risks. A number of bulletins, guidelines and pamphlets were prepared along with a standardized prescription paper, and distributed to health facilities in the country. One concern is that although antimicrobial drug resistance is one of the biggest global healthcare challenges, the regulation does not adequately address this serious issue in the country.

The required legal framework to control tobacco in the country was prepared according to international agreements. The country's quarterly and annual consumption data of narcotics and psychotropic substances has been communicated to the international organizations concerned. However, illegal circulation of drugs, the high tendency of youth to abuse drug use and the delay in implementing tobacco control is a challenge and a limitation to the regulatory sector.

Health institution national standards have been developed and discussed with responsible stakeholders for validation. Although many private health institutions are serving the public by respecting the rules and regulations of the country, a significant number of private health institutions are practicing illegally.

Health professionals trained abroad and with skills scarce in the country are licensed at the federal level while other practitioners are licensed in the respective regions where they are practicing. This creates a favorable condition in the follow-up and regulation of health professionals as well as minimizing the bureaucratic burden of the licensing process. Inspection of health professionals, establishment and strengthening of ethics review committees at regional levels and registration and licensing of new disciplines are a challenge to the sector.

3.3.10. Leadership, Management and Governance

The Government of Ethiopia (GoE) implemented the Business Process Re-engineering (BPR) in the health sector in order to establish customer focused institutions, rapidly scale up health services and enhance the quality of care, as part of the civil services' reform programs (HSDP IV, 2010). The BPR has changed the MoH structure, and has shifted direct responsibility of specific programs. With the BPR, Ethiopia has increasingly decentralized oversight and management of its public health system to the Regional Health Bureau (RHB) level. To support the implementation of the reforms, training has been provided to managers and technicians at all levels. In Ethiopia, almost all regions have endorsed the legal frameworks for the establishment of hospital boards and health center governing bodies/management committees. The existing structure at the MoH facilitates federalization/decentralization as it enables the federal level structure to examine the effectiveness, efficiency, equity and sustainability of health services and engagement of local stakeholders through dialogue on these issues using various forums like the Joint Core Coordinating Committee (JCCC), review meetings, community forums etc.

The Ministry of Health and Regional Health Bureaus have also taken huge steps in transferring some responsibilities, authority, power and resources to local levels. This transfer of responsibilities created opportunities for effective governance at local levels. Effective governance at local levels supports the work of health managers and health workers in the districts and facilities. In order to improve the governance structure at points of service delivery, the government has introduced facility governance boards comprising of various relevant bodies in a given local community.

Various assessment reports have recommended capacity building on leadership, management and governance in order to address the critical gaps in the health sector. These areas of improvement include the capacity to: implement a decentralized health care system; improve the utilization of health services; systematically follow-up on the implementation of policies, guidelines, standards and protocols; implement reforms in a timely manner; and enhance the coordination of public-private partnerships in health.

The 2013 baseline assessment report of the leadership, management and governance (LMG) project indicated that the directorates/ units /core processes assessed are moderately keen to coordinate programs better, scan their internal and external environments and regularly assess staff capacity to provide feedback and support. Additional leadership practices included the proactive involvement of staff in prioritizing key activities, aligning and mobilizing stakeholders for a shared vision. It was also noted that the BPR, BSC and other initiatives are contributing positively for the improvement in LMG practices, but the pace of rolling out of such practices is still slow. It was remarked specifically with the BPR implementation that the degree of commitment of the top management is fairly high and the awareness and the attitude of employees and management is moderate. However, there are inherent significant commitment gaps and resistance to change which requires attention.

It was noted in the health sector plan reviews' report that the MoH-RHBs joint Steering Committee, MoH-HPN Joint Consultative Forum and the Joint Core Coordinating Committee have been functioning very well. The MoH-RHBs Joint Steering Committee, chaired by the Minister, meets regularly (every two months) to promote and monitor the implementation of the HSDP Harmonization Manual, strategic objectives of the HSDP IV and other various reforms. It was also noted that strong leadership and governance is required for the successful implementation of the one plan, one budget and one report (M&E) framework.

The MoH-Donor Joint Consultative Forum and JCCC meetings have been functioning on regular basis with the JCCC focusing on technical and operational issues. The MoH has been championing investments to strengthen supervision and governance at the hospital level, including the development of supervisory and performance improvement teams at the regional and city level (i.e., the Curative and Rehabilitative Core Process Teams), implementation of health management information systems, planning and reporting processes and the building of hospital governing board capacity.

3.4. Situational Analysis from perspective of Equity

Equity in accessing health services and health outcomes is an important development agenda for Ethiopia. Inequalities in health become noticeably evident when looking at social determinants. The inequality in health is viewed from two perspectives in this analysis; Equity from the perspective of social determinants and equity within the health sector. Gender is considered as a cross cutting equity issue from both perspectives as well as women's empowerment.

3.4.1. Equity analysis from perspective of social determinants of health

According to the Rio Political Declaration of Social Determinates of Health[8], health equity is a shared responsibility and requires the engagement of all sectors of government all segments of society and of all members of the international community. Status of individuals or groups with regards to their wealth, education and access to basic utilities such as water, electricity and road determines their access to health care and ultimately, their health outcomes.

Education Status

According to several studies, differences in educational status resulted in differences in health status, exposure to health risks, access to health services and health seeking behavior. GoE has given unprecedented focus to bring about generational change in the education status of its citizens evidenced by massive expansion of schools and higher education institutions. As a result, net primary school enrolment (Grade 1-6) reached 99% in 2014, a fivefold increase from the 1990 rate of 19%.

In 2014, more than 1.7 million youth were attending higher education in 1312 TVETs and 33 universities. More than 3.5 million adults benefited from adult education programs and 6.6 million are currently in the adult education programs.

The proportion of girls enrolled in primary and secondary education exceeded 45% in 2014 (more than 9.2 million girls out of 20 million) as a direct result of the GoE's policy to empower women through enhancing girls' education.

[8] http://www.who.int/sdhconference/declaration/Rio_political_declaration.pdf

Food Security

Ethiopia has made considerable advancement towards food security evidenced by a reduction in poverty, an increase in crop yields and availability and an increase in per capita income—rising in some rural areas by more than 50 percent.

One of the pillars for Ethiopia's recent economic rise is sustained agricultural growth. In the 1990s, agricultural growth averaged nearly 3 percent. In the following decade, it grew to 6.2 percent. Over the same time period, the prevalence of underweight and stunted children under five years dropped. One measure Ethiopia has already taken is establishing the Ethiopian Agricultural Transformation Agency (ATA), which combines the analytical capacity of a research organization with the political and economic power of an implementing organization[9].

Access to drinking water

The 2015 assessment report by the UNICEF/WHO Global Joint Monitoring Program for Water and Sanitation (JMP) indicates that Ethiopia has met its target of 57 per cent[10] of the population using safe drinking water and has attained the target by halving the number of people without access to safe water since 1990.

According to EDHS (2011), the proportion of population using an improved drinking water source was about 51% with 92.8% in urban and 41.6% in rural settings. The average time taken to obtain drinking water (round trip) was more than 30 minutes in 56% of the population with 21.4 % in urban and 63.6% in rural areas. Adult women (69.1%) and girls (17.8%) are responsible for fetching water in rural areas compared to 5.8% of men and 5.3% of boys.

According to EDHS 2011, Diarrhea prevalence is highest among children residing in households that drink from unprotected wells (18 percent), those residing in rural areas (14 percent) and children residing in Benishangul-Gumuz and Gambela (both 23 percent).

Access to roads

Cognizant of the key role of the transport sector in economic growth, the government of Ethiopia has spent up to 40% of its capital budget for road construction. As a result, the road coverage in the country has reached 105,000 kms, a six fold increase compared to 1990 road coverage. About 10,765 rural kebeles are connected with the Universal Rural Road Access Program (URRAP), creating better access to health care for millions of mothers and children who were deprived of such a right before. Subsequently, the average distance from all-weather roads across the country has declined from 21.4km at the start of the program (RSDP) in 1997 to 11.3km in 2010 and 6.4km currently . The road network in good condition has increased from 22% in 1997 to 56 percent in 2010 and 70 in 2013. The road density/1000 sq. km also increased from 24.1km in 1997 to 44.4km in 2010 and 78.2km in 2013[11].

Rural Electrification Program

Similarly, the rural electrification program has electrified 5,415 rural towns and villages since its launch in 2006, paving way to a better life. Access to electricity has helped in lifting the domestic work burden on women and reduction in pollution by replacing utilization of dung and firewood with electricity[12].

[9] http://www.ifpri.org/blog/can-ethiopia-maintain-its-great-progress-toward-food-security
[10] https://unicefethiopia.wordpress.com/2015/03/23/ethiopia-meets-mdg-7c-target-for-drinking-water-supply/
[11] http://www.thereporterethiopia.com/index.php/news-headlines/item/1198-paved
[12] http://www.ena.gov.et/en/index.php/economy/item/874-eepco-electrifies-over-5-000-rural-towns-villages#sthash.KQppEiW8.dpuf

Connectivity of citizens through modern communication means is showing a significant rise as evidenced by 32 million mobile phone subscribers and an increase in telecom penetration to 37%, thus making Ethiopia one of the top six countries in Africa.

Economic growth

Ethiopia's economy is among the fastest growing economies in the world with a annual average GDP of 10.9 %. In the last four years of the Growth and Transformation Plan (GTP) implementation periods (2010/11 – 20013/14), the economy has also registered robust growth with an annual average GDP of 10.1%. Agriculture, Industry and Service sectors have 6.6 %, 20.0%, and 10.7% annual average growth rates respectively (MOFED, 2014)[13]. As the result, a remarkable reduction in poverty rate has been observed (World Bank Group, 2015)[14].

3.4.2. Equity analysis within the health sector

The Equity analysis in the health sector is mainly done at outcome level with some impact level indicators.

i. Equity at outcome level

Health equity at outcome level refers to coverage of high impact intervention disaggregated by relevant equity dimensions. Difference and ratio as well as concentration curve when relevant are used to measure inequality by place of residence (i.e., urban/rural) and measure inequality between two extreme groups of wealth status (i.e. top and bottom wealth quintiles) in a population reproductive, maternal, neonatal, child health & nutrition (RMNCHN) indicators are used as tracer of outcome level inequalities for the health sector.

A declining trend has been observed in CPR between urban and rural residents and remains with a stable pattern by wealth quintile, whereas the gap got wider in both stratifiers for skilled birth attendance (figures below)[15]. Therefore, the increase in percentage of deliveries attended by skilled health personnel has been achieved mainly through improvements among the rich and urban groups, reflecting the need to exert extra effort in ensuring the access to and use of skilled birth services in remote areas and among disadvantaged groups.

[13] http://www.mofed.gov.et/Amharic/Resources/Documents/ESTIMATES%20OF%20GDP%20AND%20OTHER%20MACROECONOMIC%20INDICATORS_ETHIOPIA%202006%20(2013_14%20EFY).pdf

[14] Ethiopia poverty assessment 2014. World bank group January 2015

[15] Sandro (MoH, 2015): unpublished article: MEASURING PROGRESS TOWARDS REDUCTION OF HEALTH INEQUALITIES IN ETHIOPIA: PRACTICAL EXAMPLES OF EQUITY ANALYSIS FROM AVAILABLE DATA

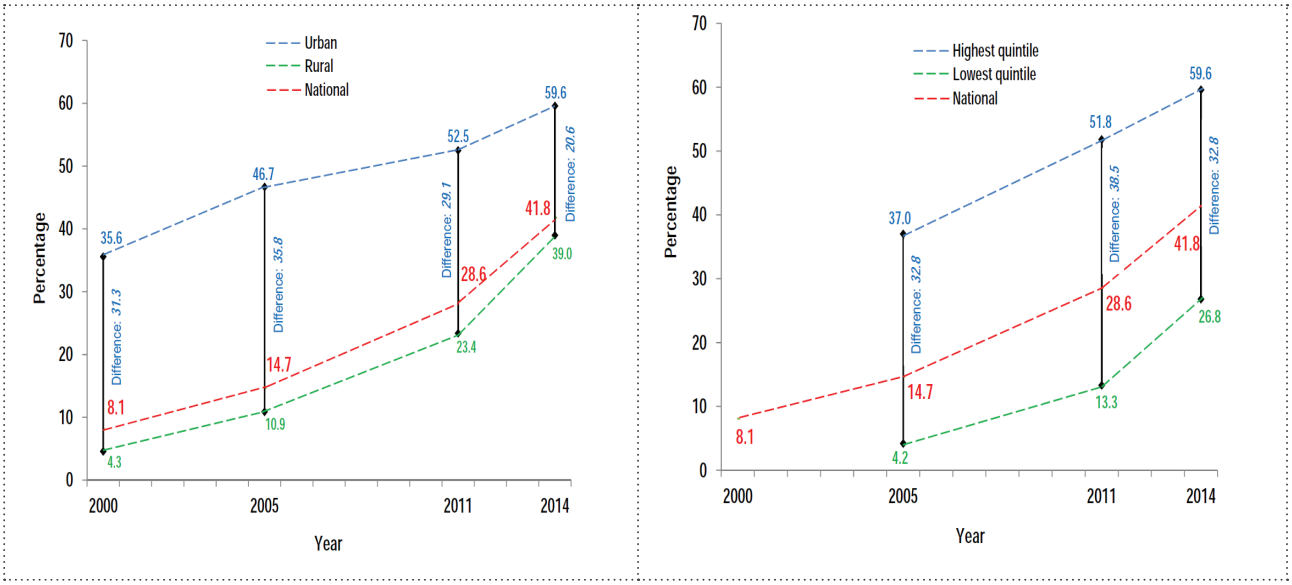


Figure 4. Distribution of percentage of contraceptive prevalence rate by geographical area (1A) and by wealth quintile (1B) (EDHS 2000, EDHS 2005, EDHS 2011 and EMDHS 2014).

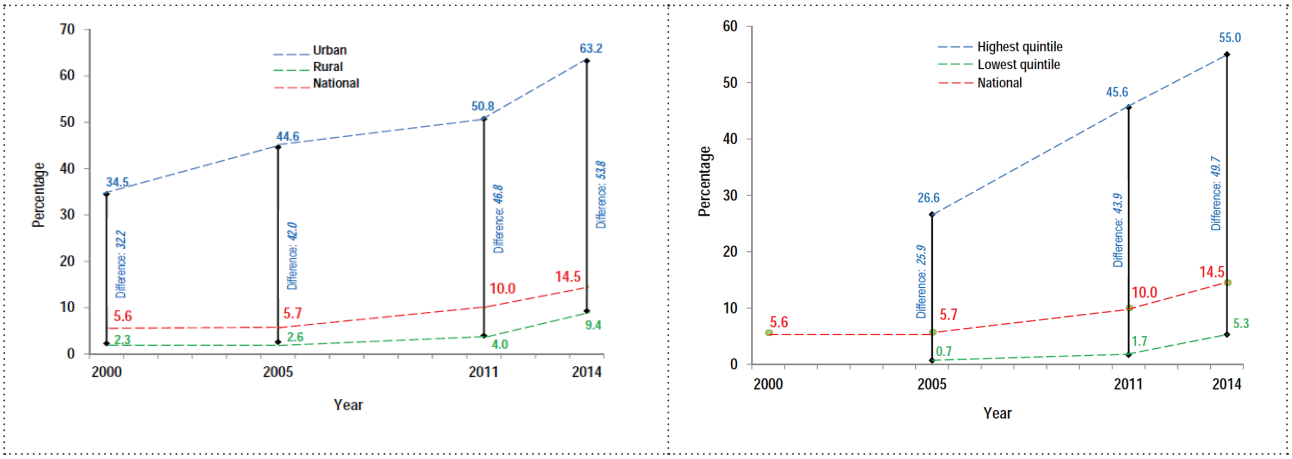


Figure 5. Distribution of percentage of skilled birth attendance by geographical area (2A) and by wealth quintile (2B) (EDHS 2000, EDHS 2005, EDHS 2011 and EMDHS 2014).

It is worth noting that the percentage of skilled birth attendance in the bottom wealth quintile was very low in EDHS 2005 (0.7%) and in EDHS 2011 (1.7%), with an increase in EDHS 2014 to 5.3%, therefore accounting for a high eight-fold proportional growth between 2005 and 2011. The increase in the top wealth quintile was from 26.6% in EDHS 2005 to 55.0% in EDHS 2014, with a two-fold increase in the same period (Figure 2B). It is for this reason that the ratio between top and bottom quintiles was 38.0 in EDHS 2005, decreasing to 26.8 in EDHS 2011 and 10.4 in EDHS 2014. Therefore, while the absolute difference between top and bottom wealth quintile has increased over time, the proportional difference, as expressed by the ratio, has decreased because of the steeper relative (eight-fold) increase in the bottom wealth quintile compared to the top one (two-fold increase).

The comparison of the concentration curve on skilled birth attendance lies consistently below the line of equality indicating the top wealth quintile took a larger fraction of skilled birth attendance. This shows a visual picture of growing inequality over time. These results are consistent with the description above.

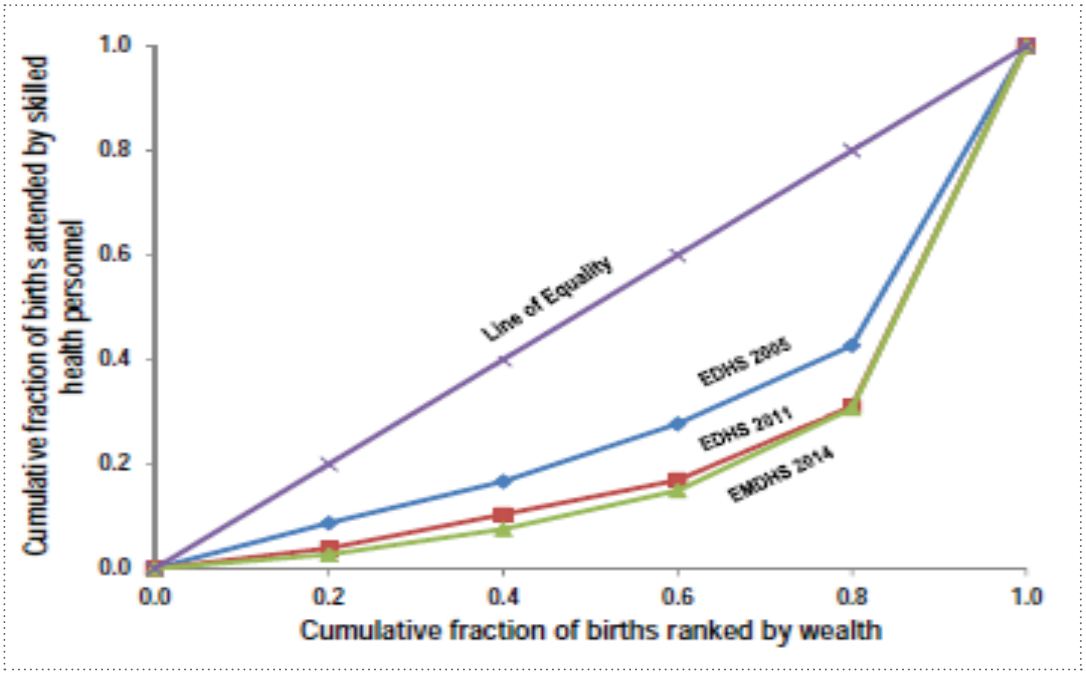


Figure 6. Distribution of the concentration curve by wealth (EDHS 2005, EDHS 2011 and EMDHS 2014).

According to HMIS data in EFY 2006, the proportion of pregnant women who received ANC (at least one visit) was 98.1% with a range of 54.4% in Somali and 100% in Tigray, SNNPR, Dire Dawa, and Harari regions. The HSDP IV's target for skilled delivery was 62% and in the nine months HMIS report of EFY 2007, the coverage has reached 55%. The EFY 2006 HMIS report showed variation across regions, ranging from 20.8% in Gambella to 85.0% in Addis Ababa. Despite the fact that an increase was observed in all regions, only Harari (78.2%) exceeded its regional target (72.0%) in EFY 2006 (MoH, 2014).

According to the recent Mini-EDHS 2014, the average total fertility among Ethiopian women has reduced to 4.1, with 2.2 in urban and 4.5 in rural areas. Hence, the objective of the national health policy[16] in reducing total fertility rate (TFR) to 4 by 2015 from 7.7 in the 1990s has been achieved. There is also huge disparity between regions in Ethiopia from TFR of 7 in Somali region and 1.7 in Addis Ababa. The disparity is observed even among urban areas with a total fertility rate of 3.4, 3.4 and 1.7 in Dire Dawa, Harari and Addis Ababa respectively. Noticeable variation in total fertility rate was also observed among women as a result of their place of residence (urban vs rural), wealth and educational status. Women who live in urban areas, who are better off in wealth and education have smaller number of children in their lifetime.

Current use of any contraceptive method varies markedly by region, ranging from 1.7% in the Somali Region to 64.1% in Addis Ababa. Similarly, use of any modern contraceptive method was lowest in the Somali Region (1.0%) and highest in Addis Ababa (57.4%). The national contraceptive acceptance rate in EFY 2006 is about 63% (lower than HSDP IV target of 82%), ranging from 90.7% in Amhara to 10.6% in Somali region.

According to Mini-EDHS (2014), stunting declined to 40% with regional variation ranging 22.9 % in Addis to 49.2 % in Afar with seven of the regions having a stunting rate that is more than 30%. Stunting is more prevalent among rural dwellers and children from the lowest quintile families for educational and wealth status.

[16] National Population Policy of Ethiopia; April 1993.

ii. Equity at impact level

Ethiopia has made a commendable progress in improving the health status of its citizens as measured by prolonged Life Expectancy at birth and improvement in mortality rates of children and mothers as well as a decline in mortality and morbidity due to major communicable diseases. However, disaggregated data is not available widely. Although the 2011 EDHS findings are not up-to-date, a significant inequality in under-five mortality was observed between urban and rural areas, among regions, educational status of mothers and wealth quintiles. Childhood mortality was higher in rural areas than in urban areas with under-five mortality of 114 and 83 among 1000 live births respectively. These rates were highest in Benishangul-Gumuz with 169 deaths and lowest in Addis Ababa with 53 deaths per 1000 live births.

With regards to a mother's educational status, under-five mortality among children born to mothers with no education (121 per 1,000 live births) is 2.6 times as high as that of children born to mothers with secondary education (46 per 1,000 live births) and more than five times as high as that of mothers with more than a secondary education (24 per 1,000 live births). Although childhood mortality generally decreases as wealth increases, the differences are relatively small in the three highest wealth quintiles. However, the lowest two quintiles have higher mortality rate with 137 and 121 deaths of U-5 children as opposed to 96, 100 & 86 deaths per 1000 live births among the three highest quintiles respectively.

3.4.3. Women empowerment (Gender equity)

One key aspect of the economic reform in Ethiopia is empowering women through creating equal opportunities and affirmative action for women to participate in the economic development of the country. The Ethiopian Constitution recognizes the principle of equality of access to economic opportunities, employment and property ownership for women. Following this, the government has formulated a national gender policy, which recognizes equality between the sexes and sets up mechanisms for the improvement of women's conditions, such as the establishment of the Ministry of Women's Affairs. The main strategies employed to implement the national policy include gender mainstreaming in sector and development programs, advocacy and capacity-building initiatives.

Positive trends are being witnessed in empowering women. The proportion of girls enrolled in primary and secondary education has increased considerably. More than 30% of undergraduate and 19.5% enrolments in higher education institutes in 2012/2013 were by women. Furthermore, the gender disparity index is almost approaching equality between boys and girls as evidenced by 0.94, 0.92 and 0.81 for primary, first cycle secondary and second cycle secondary level education respectively in 2012/13[17]. However, the rate of unemployment is still high among women. According to the 2014 survey conducted by the Central Statistics Agency (CSA), urban unemployment rate is about 17.4%[18]. The corresponding rates for males and females were 11.3 percent and 24.1 percent, respectively.

The health Sector is committed to strengthening gender mainstreaming at all levels of the health care system through the development of a Gender Mainstreaming manual and supporting its implementation is underway in all major health initiatives and programs. Few examples of gender oriented programs and prevailing challenges are detailed below.

In the health sector, the country's flagship program called the Health Extension Programme (HEP), which is underpinned by the core principle of community ownership, delivers cost-

[17] http://www.moe.gov.et/English/Resources/Documents/eab05.pdf (MOE-2005 EFY report)
[18] http://www.csa.gov.et/images/general/news/urbaneusuervey_2014

effective basic services to all Ethiopians, mainly women and children. At the center of community ownership efforts, empowering women is the principal means to ensure the health of all family members in the household. The Health Development Army (HDA), which organizes and mobilizes families (mainly women), is meant to scale-up best practices gained from the HEP. Organized popular mobilization in the health sector is showing promising momentum in overcoming what has been stagnant indicators to higher coverage such as with skilled birth attendance. Nevertheless, maternal mortality and morbidity (such as fistula) is still very high as consequences of harmful traditional practices such as early marriage, sexual violence and use of unlawful traditional healers. Women are more exposed to STIs including HIV. According to the HIV related estimates and projections for Ethiopia-2012, published by the MoH and Ethiopian Health and Nutrition Research Institute (EHNRI)- now the Ethiopian Public Health Institute (EPHI)- the adult HIV prevalence is estimated at 1.2% (0.8% in males and 1.6% in females) and the adult HIV incidence was 0.03% in 2014. HIV-related deaths among men declined from 41% (2001) to 11% (2009); and from 51% (2001) to 14% (2009) among women.

3.5. Lessons Learned from HSDPs

Ethiopia has implemented successive Health Sector Development Plans (HSDPs) since 1997 in four phases. As described previously, over the last two decades, Ethiopia has made huge strides in improving access to health services and improvements in health outcomes. The country's health indicators have been remarkably improved from one of the worst in Sub-Saharan Africa to amongst the stand out performers during this period. So, it is of paramount importance to stock take the lessons learned in general and the factors that have driven successes in particular. The following is a brief summary of lessons learned:

1. Country Ownership: the health sector epitomized how the principles of country ownership can be translated into concrete actions. This was possible through strong leadership by the government, fostering community ownership, building the health sector's capacity to respond to the health needs of the people, and accountability for results.

- Government in the driving seat:

  ✓ The government of Ethiopia has set out policies and strategies that clearly articulated the priorities in the health sector, and what should be achieved in each phase of HSDP. This made the government and the country to be the chief architect of the strategies and plans that were aligned to the national priorities. The setting up of ambitious goals and an all inclusive planning process involving local governments, implementing partners and development partners have facilitated buy-in of the priorities, implementation and oversight of the national plan to achieve results and scale-up of evidence based practices. A number of examples can be cited to illustrate the importance of the government being in the driving seat and setting ambitious goals and strategies despite frequent skepticism about how realistic the goals were. One such example is the training and deployment of health extension workers, which in its early days was subjected to criticism from partners, health professionals, and other stakeholders. It is the ambition and unwavering political commitment of the government that made this program a success.

- Community ownership:

  ✓ Involvement and empowerment of communities has been the major driver of health improvement in Ethiopia. The process of engaging communities has gathered momentum when the health extension programme was started. The concept of having model

families that go through a structured training based on the health extension packages is an innovation that ensured transfer of knowledge and skill to individuals and families so that they have better control over their health. The practice of innovation diffusion and behavior change communication using model families and tapping into the cultural and social networks such as the coffee ceremony helped the country register remarkable progresses in many health programs and consolidated the community engagement in health interventions. One such example is the reduction of new HIV infections and ever-increasing demand for HIV counseling and testing which is the direct result of community conversations about the disease and its prevention strategies. As a result, in many parts of Ethiopia, premarital HIV counseling and testing (HCT) has become the new norm. The Health Development Army which involves three million model women is another example that shows how community ownership can literally transform the rate of institutional delivery from below 20% in 2011 to nearly 60% in 2015 by generating demand, introducing mother-friendly practices such as porridge preparation in health centers and contributing resources such as construction of maternity waiting homes. It is therefore, very critical for the health sector to continue with strategies that foster community ownership.

- Building a strong health system:

  ✓ An important lesson that can be drawn from the implementation of HSDPs is the strong emphasis that was given to building a strong health system. Incredible investments were made to expand access to primary healthcare facilities in a short period of time by engaging communities to contribute labor to construct health posts and leveraging external resources to unlock more domestic resources through a matching approach for the construction of health centers. In parallel, massive scale-up for training of midlevel health professionals was done. Again, innovative strategies, such as the training of HEWs in technical and vocational colleges and accelerated training of health officers using hospitals as affiliate sites were deployed to increase the country's capacity to train more health workers. The healthcare governance reform which led to establishment of governing boards with representation of community members and the local leadership is helping improve the performance of health facilities through better decision-making to address the needs of the community they serve. The healthcare financing reform allowed health facilities to retain the revenue they generate and utilize it to improve the quality of health services. The establishment of a pharmaceutical fund and supply agency (PFSA) to improve availability and affordability of essential medicines has also been a game changer. PFSA has constructed regional hubs with the aim of door-to-door supply of commodities to health facilities within a 180 km radius of the hubs. This reduces the layers of stopovers for a commodity supply and improves the efficiency of the supply chain. The health management information system has also been reformed to improve the quality and reliability of data. Of particular interest is the rollout of 18 million family folders, which provides a lot of opportunity to strengthen evidence-based planning, verify reported data and form the base for vital events registration throughout the country.

- Mutual accountability

  ✓ The government of Ethiopia has made a steadfast commitment to improve the health of all Ethiopians. This political commitment was translated into a number of actions such as the decision to provide all HEWs with government salaries, which is an unprecedented move that doubled the country's health sector wage bill. Ethiopia, as an early signatory of International Health Partnership plus (IHP+) compact, upholds the principle of harmonization and alignment seriously. Efforts have been made to make all non-state actors buy into 'one plan, one budget and one report" framework in a flexible

but focused manner guided by HSDPs. Adequate consultations have been ensured in planning, implementation and evaluation through various platforms. Town-hall meetings and public conferences have been conducted to engage the public and stakeholders. Following signing of the global IHP+ compact in 2007, the country IHP+ Compact was signed a year later by 11 Development Partners (DPs). For translating this commitment into actions, the Joint Financial Arrangement (JFA) was signed by eight partners in 2009 after assessing the financial and procurement system of GoE. The JFA was revised in 2012 and the number of signatories reached 12. With JFA, a pooled fund mechanism called MDG pooled fund (MDG PF) came to existence as a preferred modality of receiving support by the GoE. The MDG PF supports government priorities, reduces transaction and overhead costs, is flexible and promotes value for money. Mid-term reviews of HSDPs have been done and robust measurement systems, including community and facility-based surveys were done and the results have been taken into consideration during planning processes. Through the Joint Consultative Forum (JCF), plans have been jointly approved with development partners and performances were jointly appraised to build trust and confidence in the pooled financial mechanism.

2. Partnership: Aligning stakeholders behind one national plan

- Over the past two decades, Ethiopia has enjoyed unprecedented support from its development partners. The support has been guided by national aspirations and plans. Over the years, a culture of candid discussion with development partners has been nurtured. The willingness to learn from others and improve national plans and strategies based on the inputs from stakeholders has facilitated the scaling up of high impact interventions nationally, and avoid the 'pilotitis trap' (having so many pilots with no game plan for scaling up), which is very common in the developing world. When programs designed in donor capitals did not fit into the reality on the ground, the government has been assertive to point that out to the partners and improve it to fit local needs. This has helped the country build a reputation and positively influenced the behavior of its partners.

3. Coordination and alignment with regional governments:

- Ethiopia, which had centralized governments for centuries, had opted for a federal government system when the constitution was endorsed two decades ago. This resulted in devolution of power to regional states. There has also been further decentralization to the woreda level where elected woreda councils form local governments and allocate budget for various government functions. The Ministry of Health is mandated to formulate national policies and strategies, and develop standards. This requires for a seamless coordination between MoH and RHBs to maximize impact. Although the process had its ups and downs, a number of interventions have been carried out to improve coordination and improve alignment of strategies to address the health issues in the country. One such intervention is the formation of a joint steering committee in which MoH and RHB heads meet for a consultative forum every two months where policies and strategies are debated and consensus built in leading the health sector. Annual operational plans are set jointly, performances reviewed and follow-up actions streamlined accordingly in these meetings. Woreda Based National Planning (WBNP), another intervention to improve alignment, creates an interface alongside the administrative tier system of the sector through bottom-up and top-down planning processes. Resource mobilization exercises are carried out at all levels during the sector's operational planning to prioritize interventions. Furthermore, WBNP provides district administrators the opportunity to bargain during budget allocation by clearly showing objectives with their targets and the resources required to achieve them. The woreda finance officers are involved in the planning exercise so that aligning budgeting system of districts would be easier. Annual Review Meeting has been conducted for the last 16 years bringing all stakeholders together. Performances are reviewed at a national

scale and operational plans approved by all RHBS and MoH in the presence of development partners and other stakeholders ensuring the whole nation is operating under one plan. The forum is used to discuss new initiatives, poor performing areas and best practices with a number of side meetings and exhibitions.

There are a lot of lessons that were learned during implementation of the four successive HSDPs. The performances have been documented through annual reports, mid-term and final evaluations of HSDPs. A number of specific program reviews have also been carried out detailing out the challenges and best practices. The lessons that were described previously are considered critical in moving into the era of HSTPs as well.

3.6. Key successes and their contributing factors in the health sector

Ethiopia has come a long way in improving the health status of its people, evidenced by achievements or remarkable progress made in the/towards the achievement of MDGs, other health and health related indicators. Access to services has improved drastically as a result of the capacity building efforts in improving the health system inputs and processes. The main drivers for the successes were strong leadership, community empowerment and better financing by the Ethiopian government and development partners.

The Government of Ethiopia has demonstrated strong leadership in the past two decades, evidenced by its comprehensive and pro-poor national policy; country wide led strategy development and effective coordination in implementation. The 1993 national health policy emphasizes access to a basic package of quality primary health care services by all segments of the population, using democratized and decentralized health systems. Following the national health policy, a twenty-year health sector development strategy was formulated and implemented through a series of five-year plans (HSDP I-IV). The commitment and effort of the government towards primary health care, focused and pro-poor health policies and strategies coupled with the positive socioeconomic development have had a synergistic effect to achieve better health outcomes compared to the country's health profile in the 1990s. The government's massive incremental efforts during the last decade through the setting up of ambitious targets, designing innovative and scientifically proven high impact interventions and taking actions at full scale, were contributory success factors. As a result of these, the government's massive investment to strengthen the health system capacity by: increasing the number of health science colleges; increasing the number of health workers and improving logistics supply and expansion of health infrastructure (building new health posts, health centers and hospitals). These investments have greatly improved the health system capacity and increased access to health services. Furthermore, the Health Extension Programme (HEP) and all effort made throughout the implementation of the HSDP is a testimony of the government's political commitment, which helped to accelerate the expansion of the PHC coverage.

The people of Ethiopia played an extraordinary role in the successes observed today. Entire communities have shown solidarity in moving their own health agenda forward by implementing the HEP at household and community levels. The HEP is an innovative community-based strategy to deliver preventive and promotive services and selected high impact curative interventions at community and household levels. The Health Extension Programme (HEP) played a pivotal role in improving accesses to essential services in addition to creating awareness and demand for health care services. Access to ICCM, immunization, FP services including implanon, ANC, PNC, community based HIV, TB and malaria care has significantly improved through the deployment

of more than 38,000 health extension workers in more than 16,000 kebeles. Additionally, the Ethiopian Government is implementing the Health Development Army (HDA) designed to promote participatory community engagement and empowerment in order to build on the gains of the HEP. The HDA, apart from its importance for creating the required awareness and demand of health and healthcare, is the key to community empowerment in ensuring the continuity and sustainability of health programs through community engagement in the administration and regulation of their respective local health facilities and community health interventions. To date, there are half a million (a total of 442,773) HDA groups and more than 2 million (2,289,741) one-to-five networks. The HDA groups and networks are expected to extend their sphere of influence to other health programs similar to the progress observed in the areas of maternal health, hygiene and sanitation.

Alongside high community participation and strong leadership, better resources were also mobilized for the health sector through the strong partnership of all stakeholders underpinned by the principles of harmonization and alignment. The collaboration with the development partners has contributed hugely tor the successes in the health sector in particular as well as socioeconomic growth of the country in general. The partnership has enabled convergence of all sorts of available resources towards a common agenda, resulting in more lives saved and much more disabilities averted. Alongside resource mobilization, the GoE has demonstrated its 'value for money' approach by delivering more with less resources as evidenced by low per capita expenditure and yet commendable achievements in the MDGs and beyond.

All in all, effective partnership of the people, government and development partners has laid a strong and favorable foundation for an even healthier and economically stronger Ethiopia.

Chapter 4

Health Sector Transformation Plan

Chapter 4: Health Sector Transformation Plan

4.1. The Structure of HSTP:

The Health Sector Transformation Plan is prepared using a Balanced Scorecard (BSC), which is a strategic planning and management system designed to help everyone in an organization understand and work towards a shared vision and strategy. A completed scorecard system aligns the organization's shared vision with its business strategy, desired employee behaviors, and day-to-day operations.

The BSC Strategic Planning starts with the organizational Mission, Vision, and Core Values which are translated into desired Strategic Results. Strategic Themes (organization's Pillars of Excellence) are selected to focus effort on the strategies that will lead to success. Strategic Objectives are the DNA of a strategy and are used to deconstruct strategies into actionable components that can be monitored using Performance Measures. Finally, Strategic Initiatives translate strategy into a set of high-priority projects that need to be implemented to ensure the success of a strategy.

Table 1: the structure of HSTP

Order		Title	Description/component
Chapter 4:	4.1	The structure of HSTP	▪ Gives view of how the strategic plan is organized
	4.2	The policy framework	▪ Highlights the policy direction and the summary of the 'envisioning"
HSTP build using the BSC steps	4.3	The Health Sector Strategic Assessment	▪ Describes the vision, mission, core values and guiding principles of the health sector; ▪ SWOT and stakeholder analysis that emanate from Chapter 3- HSDP Performance Analysis
	4.4	Strategy of HSTP	▪ Customer Value Proposition (CVP) ▪ Strategic Themes - the main focus that represent the 'Pillars of Excellence" of the health sector and expected strategic results ▪ Strategic Perspectives - performance lenses which are used to evaluate the results
	4.5	Strategic Objectives and Map	▪ Strategic Objectives, which are the continuous improvements needed to get results ▪ Strategy Map causal relationship of strategic objectives leading to results and helps to communicate values internally and externally
	4.6	Performance measures and Strategic Initiatives of HSTP	▪ Performance measures that helps to monitor the strategy; ▪ Strategic initiatives, which are projects or programmes that will contribute to the desired results
Chapter 5		Costing and financing	
Chapter 6		HSTP implementation arrangement	
Chapter 7		Monitoring and evaluation framework	

4.2. The Policy Framework

The Health Sector Transformation Plan (HSTP) is the first phase of a 20-year plan titled, ***'Envisioning Ethiopia's Path to Universal Health Care through strengthening of Primary Health Care'.*** Therefore, the performance measures and targets of HSTP are based on the envisioning plan.

Over the last decade, Ethiopia has made great improvements in many health indicators, due in large part to a well-coordinated, extensive effort and intensive investment of the government, partners and the community at large in primary care through the Health Extension Programme and expansion of PHC units. It is a priority of the Ministry of Health to expand and sustain this progress, which will require careful visioning and strategic planning for the future health care system. Over the last couple of years, the Ministry of Health (MoH) has engaged in a visioning exercise to think broadly and strategically about the long-term development of the Ethiopian primary health care system. The purpose of this visioning exercise was to develop a system that will ensure quality health services and be equitable, sustainable, adaptive and efficient to meet the health needs of a changing population between now and 2035. It is anticipated that in the coming 20 years, Ethiopia will continue its fast pace of development, and will transition into a lower-middle income country by 2025 and a middle-middle income country by 2035.

The main goal of the health system is ensuring that everyone who needs health services (promotion, prevention, curative, rehabilitative and palliative services) is able to get them without undue hardship. Hence, Universal Health Coverage (UHC) needs to be a goal for Ethiopia's health sector in the coming decades. UHC has been defined as guaranteeing access to all necessary services for everyone while providing protection against financial risk. As Ethiopia advances to middle income country status, its goal is to progress towards UHC and ultimately, achieve UHC for all Ethiopians. As the country transitions, the health sector intends to continue to invest in primary care in order to advance the overall health and wellbeing of the population, and serve the priority health needs of the majority of its people. Strong investments in primary care are anticipated to result in continued improvements in health outcomes, building on gains seen since the launch of the Health Extension Programme. However, the HEP needs to transform to the next level to meet the ever growing demand of the community, including seamless integration with other levels of services through stronger referral networks with hospitals.

Due emphasis should be given to addressing disparities in quality of care as the challenges of the current system may worsen if efforts fail to narrow the gaps.

The visioning exercise has reviewed documents to learn about the health status and performance of MIC which Ethiopia aspires to join in a decade, as well as understand what health system resources are put in place in countries with better health outcomes.

Table 2: Envisioning target for 2025 and 2035

Indicator	Status 2013	Global Average (2012/2013)	Base case target for 2025 (Median of LMIC)	Best case Scenario for 2025 (Median of benchmark LMIC)	Base case target for 2035 (Median of UMIC)	Best case Scenario for 2035 Median of benchmark UMIC
Maternal Mortality ratio per 100,000	420	210	240	120	57	46
Under 5 year mortality per 1,000	64	51	62*	31	20	14
Neonatal mortality rate per 1,000	29	22	28*	15	10	9
Age standardized Mortality due to malaria per 100,000 population	17	12	14	0	0.6	0
Age standardized Mortality due to HIV per 100,000 population	51	25	25	4	20	6
Age standardized Mortality due to TB per 100,000 population	18	14	22*	9	5.7	3
Age standardized Mortality due to NCD per 100,000 population**	476	573	658	680	608	509
Life Expectancy at Birth	64	70	66	71	74	75

*2025 base LMIC cannot be taken as bench mark as Ethiopia is on track to meet/exceed the target by end-2015

** Ethiopia needs to set a target halting deaths due to NCDs below 476

4.3. The Health Sector Strategic Assessment

4.3.1. Vision of the Health Sector:

"To see healthy, productive and prosperous Ethiopians"

4.3.2. Mission of the Health Sector

'To promote health and wellbeing of Ethiopians through providing and regulating a comprehensive package of promotive, preventive, curative and rehabilitative health services of the highest possible quality in an equitable manner."

4.3.3. Core Values and Guiding Principles of the Health Sector:

4.3.4. Strengths, Weaknesses, Opportunities and Threats - SWOT Analysis

Strengths	Weaknesses
▪ Strong leadership and governance ▪ Organized community engagement , particularly the Health Development Army ▪ Essential Health Service Package ▪ Achievements of most of the HSDP IV and MDG targets: ▪ Reduction in the occurrence of outbreaks ▪ Steady increase in key intervention coverage such as CPR and vaccination ▪ Access is improving, particularly to PHC ▪ Program management is improving ▪ Institutionalization of PHEM ▪ Legal framework for surveillance/surveys ▪ Right based approach such as the family planning program ▪ New initiative scale-up ▪ Rapid increase in the availability of human resources for health ▪ Evidence generation and dissemination is improving ▪ Integrated supportive supervision and inspection ▪ Regular and participatory review mechanism such as the Annual Review Meetings ▪ Improvement in medical products vaccines and technologies ▪ Increased availability of ambulance services ▪ Implementation of health care financing reform (such as fee retention, private wing, service fee revision, health insurance …) ▪ Strong partnership and coordination ▪ Civil service HDA platform ▪ Institutionalization of service improvement approaches like BSC. ▪ Strengthening the regulatory system	▪ Sub-optimal service availability and readiness at health facilities, including problem of utilities ▪ Missed opportunities for essential health interventions due to limited focus on integrated service delivery ▪ Sub optimal Emergency Medical Care System ▪ Inequality in accessing health services ▪ Distribution of skilled human resources ▪ Suboptimal quality of care ▪ Poor utilization of services (Per capita OPD visit, bed occupancy rate …) ▪ Sub-optimal referral and feedback system ▪ Sub-optimal monitoring and supportive supervision activities ▪ Inadequate multi-sectorial collaboration ▪ Inadequate effort in injury prevention and occupational health ▪ Inadequate capacity to respond to the demands of urbanization ▪ Inadequate HRIS ▪ High attrition rate of health workers and inadequate motivation ▪ Suboptimal use of evidences generated for timely decision making (mainly at point of generation) ▪ Inadequate documentation and dissemination of research ▪ Supply chain gaps mainly on forecasting and distribution ▪ Sub-optimal emergency system ▪ Inadequate maintenance capacity (medical equipment) ▪ Low utilization of technology and innovations ▪ Inadequate financial utilization and timely liquidation ▪ Inadequate resource mapping capacity especially at sub-national level ▪ Inadequate follow-up on implementation of policies, guidelines and plans ▪ Suboptimal public-private partnership (coordination, mistrust, reporting…) ▪ Inadequate gender mainstreaming ▪ Variation in implementation capacity among regions ▪ Inadequate quality assurance actions

Opportunities	Threats
▪ Determination and political commitment ▪ Active community engagement (formal and informal) ▪ Improved health care seeking behavior ▪ Sustained national economic development ▪ Improved road infrastructure, telecom, electrification ▪ Improved access to education ▪ Improved literacy rate, particularly girl's education ▪ Establishment of Vital Events Registration Agency (VERA) ▪ Settlement of pastoralist communities ▪ Active engagement of other sectors ▪ Industrialization (increase in local production of drugs and equipment, local manufacturers of food, etc) ▪ Urbanization ▪ Health in all policy approaches, multi-sectoral collaboration ▪ Globalization ▪ Population growth	▪ Geographic inaccessibility of many communities, including access to ambulance services ▪ Donor source for health expenditure ▪ Low predictability of foreign funding ▪ Harmful traditional practices ▪ Perception that HDAs are politically/oriented rather than committed for health promotion ▪ Gender bias continues to affect access to services by women. ▪ Urbanization ▪ Globalization ▪ Inadequate counterfeit control (sub-standard imports) ▪ Climate change ▪ External pull factor for health workers ▪ Fragile neighborhood states ▪ Population growth

4.3.5. Stakeholder Analysis

Table 3: Stakeholder analysis

Stakeholders	Behaviors we desire	Their needs	Resistance issues	Institutional response
Community	Participation, engagement Ownership and Healthy life style	Access to health information and service, empowerment, quality of health care stewardship	Dissatisfaction Opting for unsafe alternatives Underutilization	Community mobilization, ensure participation Quality and equitable service and information
Parliaments, Prime Minister's Office, Council of Ministers, Regional Governments	Ratification of Policies proclamations etc. Resource allocation	Implementation of proclamations, Policies etc. Equity & quality Plans & Reports	Administrative measures Organizational restructuring Influence on budget allocation	Put in place strong M&E system and comprehensive capacity building mechanisms
Line Ministries (Water, Finance, Labor, Women's Affairs, Agriculture, etc.)	Intersectoral collaboration Consider health in all policies and strategies	Evidence-based plans/ Reports Effective and efficient use of resources and coordination Technical support	Fragmentation Dissatisfaction Considering health as low priority	Collaboration Transparency Advocacy
Health professional training institutes	Knowledgeable, skilled and ethical health professionals trained	Technical, policy support, guidance	Curriculum revision	Policy and leadership support
Development Partners	Harmonized and aligned Participation More financing Technical support	Financial system accountable and transparent Involved in planning, implementation and M&E	Fragmentation High transaction cost Inefficiencies	Government leadership Transparency Efficient resource use Build financial management capacity
NGOs, CSOs, and professional associations	Harmonization & alignment Participation, resource & TA Participate in licensing and accreditation Promote professional code of conduct	Involvement in planning, implementation & M&E Participation	Dissatisfaction Fragmentation Scale down Withdrawal	Transparency, Advocacy Capacity building Financial support
Diaspora and Private for profit entities	Quality of care; Client oriented; Knowledge and technology transfer	Enabling environment for their engagement	Mistrust Rent seeking	Transparency Accountability Dialogue
Civil servants	Commitment, Participation CPD	Conducive environment Transparency Incentive	Dissatisfaction Unproductive Attrition	Motivation, Involvement

4.4. Strategy of HSTP

The strategy will focus on how the health sector intends to achieve its Mission and Vision for its communities and stakeholders. It includes defining customer value proposition, strategic themes, strategic results and perspectives.

4.4.1. Customer Value Proposition

Table 4: Cutomer value proposition

Product or service attributes	Image	Relationship
Products and services the Health Sector provides have these characteristics: ▪ Accessibility–information, physical, financial etc. ▪ Timeliness of services ▪ Quality of health care services and information ▪ Safety and healthy environment ▪ Empowering communities & employees ▪ Conducive environment	The image that the Health Sector wants to portray has the following characteristics: ▪ Trustworthy: o Transparent/ Accountable o Supportive o Professional o Customer-friendly oriented o Committed	The relationship the Health Sector wants with its communities could be described as: ▪ Complementary ▪ Cooperative (participatory) ▪ Respectful and ethical ▪ Harmonious (Mutual Understanding) ▪ Transparent relationship ▪ Dependable (Stewardship) ▪ Responsive ▪ Equitable

4.4.2. Strategic Themes and Strategic Results

Strategic themes are the main focus areas of the sector's strategy; that is, the key areas in which the Health Sector must excel in order to achieve its mission, vision and strategy. Strategic themes are the Sector's 'Pillars of Excellence." For each theme, an explicit Strategic Result, or a description of the desired outcome is articulated.

The Health Sector Strategic Pillars are:

1. Excellence in health service delivery
2. Excellence in quality improvement and assurance
3. Excellence in leadership and governance
4. Excellence in health system capacity

Strategic Theme 1: Excellence in health service delivery

This theme refers to the promotion of good health practices at individual, family and community levels and the provision of preventive, curative, rehabilitative and emergency health services. The provision of service delivery should address existing gender, geographic, economic and socio demographic inequities.

It is meant to consolidate gains made on primary health care, including the health extension programme, by transforming HEP, along with other levels of care, to ensure universal health coverage. The health services delivery pillar ensures that all people can use the promotive, preventive, curative and rehabilitative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship. Universal health coverage for this strategic period refers to essential health service packages at primary health care unit and their coverage at optimal level such that citizens are protected from catastrophic out-of-pocket expenditures.

Good health service delivery is vital element of any healthcare system and is a fundamental input to improve the health status of the people of Ethiopia. Its attributes include:

a) Comprehensiveness: a comprehensive range of health services shall be provided appropriate to the level of care and in accordance with the essential health service package of Ethiopia. Services shall be delivered in an integrated manner and under the broader umbrella of health promotion, disease prevention, curative, rehabilitative and palliative care.

b) Accessibility: services shall directly and permanently be accessible with no undue barriers of cost, language, culture, geography or any other factor.

c) Coverage: with the aim of improving the health status of the population, service delivery shall emphasize effective universal coverage of high impact interventions.

d) Continuity: services delivery shall be organized to provide the individual and community with continuity of care across the network of services, natural course of health conditions, levels of care and over the life cycle/course.

e) Responsiveness: service delivery shall put in place processes to ensure and safeguard the rights of patients to adequate and timely care and protect the community by proactive and responsive management of public health emergencies.

f) Coordination: Health services network shall be actively coordinated, across types of providers, types of care, level of service for both routine and emergency care.

This is done through organizing and strengthening community empowerment, health professionals engagement in healthcare reforms, accountability for results in all health facilities and the Health Development Army (HDA) at the community level that enables communitiesto practice and manage their own health; implementing the second generation health extension programme; strengthening primary health care units and the clinical governance of hospital services.

Strategic Result 1: A health system that:

- Delivers equitable promotive, preventive, curative and rehabilitative services ensuring that all people obtain the health services they need without suffering financial hardship; and
- Enables the community to practice and produce good health; and be protected from emergency health hazards

What it includes (key concept):

- Equitable health service delivery at household, community and facility level
    - Health promotion;

- Disease and injury prevention;
- Curative and rehabilitative services;
- Health related disaster risk management;
- Emergency medical services;
- Nutrition services; and
- Hygiene and environmental health

· Gender responsive/women friendly health service delivery

The success in this strategic theme will be measured by:

- Increased knowledge, attitude and practice of the community including utilization of high impact interventions
- Reduction of maternal, neonatal and child morbidity & mortality
- Reduction of micronutrient deficiency, wasting and stunting
- Reduction in incidence and prevalence of communicable and non-communicable diseases
- Reduction of events and fatalities due to injury, medical and public health emergency

How will these help in moving to a higher level of success?

- It strengthens social mobilization and community ownership through consolidation and improvement of the health development army.
- It improves accessibility of services (physical access, access to information and health promotion tailored to cultural context).
- It ensures a continuous improvement of the primary health care reform, including the rollout of the second generation of health extension programme.
- It strengthens the implementation of hospital reform packages including hospital service quality improvement and clinical governance.
- It leads to rapid response to medical and public health emergencies.
- It promotes compassionate and respectful care in health facilities through community empowerment and emboldening the relationship between providers and communities.

Strategic Theme 2: Excellence in quality improvement and assurance

This theme refers to managing and improving quality and safety in health services at all levels of the healthcare system. The focus on quality in health systems at this time is due to the clear evidence that quality remains a serious concern. Quality and safety have been recognized as key issues in establishing and delivering accessible, effective and responsive health systems. Particularly at present where there is a huge investment and effort to expand population coverage, the process of improvement and scaling-up needs to be based on sound local strategies for quality.

Working through the process of quality assurance and continuous quality improvement will create an environment for transforming the health sector and achieving health outcome goals highlighted in this Plan.

This theme suggests that the health system should seek to make improvements in the following dimensions of quality:

- **Effective**:- delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need;
- **Efficient**:- delivering health care in a manner which maximizes resource use and avoids waste; and provided in a setting where skills and resources are appropriate to medical need;
- **Acceptable/patient-centered:-** delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their communities;
- **Equitable:**- delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location or socioeconomic status;
- **Safe**:- delivering health care which minimizes risks and harm to service users; and
- **Timely**: delivering the right care at the right time, reducing or eliminating delays.

The vision for quality in the health sector emerges from these domains of quality. Based on this vision, the system is better able to set aims, determine the relevant measurement systems and take action for improvement. An overarching aim for quality interventions is to provide person-centered, equitable and high quality health care for all that results in specific improvements in health outcomes in Ethiopia. These outcomes can be tracked through measures that are linked to the specific domains of quality listed above. These elements will be further developed through the development of a National Health Care Quality Strategy.

This theme, therefore, looks into the various interrelated and elements of quality, namely quality planning, quality assurance and quality improvement. This will build on existing efforts in quality assurance (such as setting standards for professionals, processes, and facilities) and quality improvement (iteratively testing and measuring changes to rapidly shift whole system performance and spread best practices nationally) so that requirements and goals of the product, services and/or activity will be fulfilled.

- Quality planning (QP): determines the needs that a health care system must fulfill and establishes thegoals, strategy and processes to meet these needs. Quality planning involves designing a structure that delivers the right care to patients at the right time, every time.
- Quality Assurance (QA) or Quality Control (QC): is a normative process where a basic level of quality is defined using standards. Health care is inspected and expected to conform to agreed standards. It could be imposed internally and called Internal Quality Assurance or externally required as is the case with External Quality Assurance.
- Quality Improvement (QI): is a continuous process whereby organizations, including health facilities and health administrative structures, iteratively test and measure changes in work routines, set and achieve ambitious aims, shift whole system performance and spread best practices for rapid uptake at a larger scale to address a specific issue or host of issues they have determined to improve. It usually starts with an identification of a clear aim to answer the question, 'What are we trying to accomplish?" which allows a system to achieve its aim of a new level of performance beyond what QA requires, at an accelerated pace.

Furthermore, this theme will follow a simple 'map' of domains where quality interventions could be made (and where current quality problems might be located).

1. Leadership: For the best outcomes to be achieved, strong leadership and support for quality needs to come from national and community leaders, as well as leaders of health facilities.

2. Information: The scope of the information domain includes the availability to health workers of information about best practices; the way in which those providing care give information to service users and the access by communities and individuals to information that will help them manage their own health.

3. Patients and population engagement: Central to implementing HSTP is ensuring that engagement with patients and the population is at the heart of all policies and strategies for quality improvement, and that this commitment is translated into meaningful action. Strategies to this end include those that target improving health literacy, self-care and patients' experience with the health system by strengthening the HDA. Communities and service users will be involved in the governance arrangements of the health system; their views and preferences will be heard and taken into account in decision-making.

4. Regulation and standards: the fourth domain, regulation and standards, offers considerable scope for policy interventions during the implementation of HSTP. Setting standards and monitoring adherence through regular inspection and accreditation at varying levels will be strengthened to facilitate higher compliance with evidence.

5. Organizational capacity: The fifth domain involves organizational capacity. The issues for quality in this domain apply throughout the health system. At the federal and regional level, capacity will be built to lead the development of policy, to drive implementation and to keep performance under review. Within communities, the HDA will be supported to build the capacity to identify needs and preferences and to articulate them within the health system. Health facilities will be supported to enhance their ability to develop systems to support quality improvement such as audit and peer-review; their capacity to develop their workforce and equip them with the skills needed to deliver quality; their ability to build an organizational culture which values quality; and their ability to use rewards and incentives to promote that culture.

6. Models of care: The final domain reflects currently understood best practices for the delivery of health care generically and to particular population groups, such as groups defined by a common need (e.g. people with chronic conditions) or common characteristics (e.g. children or the elderly). The development of new models of care will normally aim to address all the dimensions of quality described earlier (i.e. effective, efficient, accessible, acceptable/patient-centered, equitable and safe) and will seek to improve outcomes by organizing integrated responses.

Strategic Result 1: A community served with health care that is effective, efficient, person-centered, equitable, safe, timely at all levels and at all times and is protected from health hazards.

What it includes (key concept):

- Health literacy (informed citizens)
- Internal quality improvement and assurance

- External quality assurance
- Licensure and accreditation
- Continuous quality improvement
- Redesigning model of care

The success in this strategic theme will be measured by:

- Reduction of case fatality rate of priority diseases and conditions
- Reduction of institutional mortality
- Improved rates of client satisfaction
- Improved timely access and reduced average length of stay
- Enhancement public safety
- Reduction of incidence of hospital acquired infections
- Increased number of accredited services/facilities

How will these help in moving to a higher level of success?

- Ensure service quality & provision per standard, and beyond standard

Strategic Theme 3: Excellence in leadership and governance;

This theme refers to evidence-based policy formulation and planning; implementation; effective monitoring and evaluation, motivation and partnerships that integrate all health systems building blocks to achieve results. It incorporates:

- Equitable and effective resource allocation;
- Leadership development within the sector and the community, including the health development army, with the concept of community empowerment;
- Woreda transformation; and
- Partnership and coordination

Strategic Result:

- Efficient, accountable and transparent institutions serve all segments of the population.

What it includes (key concept):

- Evidence-based policy formulation, planning, monitoring and evaluation;
- Evidence generation including research;
- Equitable and effective resource allocation (finance, human capital & infrastructure);
- Financial protection;
- Leadership development at all levels including communities, Woreda transformation
- Promoting women into leadership/decision-making and governing positions;
- Good governance;

- Harmonization and alignment;
- Multi-sectoral collaboration;
- Community participation in health facilities

How will successes be measured?

- Improved partnerships
- Timely decision
- Equitable resource allocation (finance, human capital & infrastructure)
- Employees satisfaction at every level
- Number of women in leadership positions
- Number of health facility boards with community representatives

How will these help to moving to a higher level of success?

- Policy will define priorities; strategies set long term targets with indicative resources
- Evidence based and participatory resource allocation
- Reducing avoidable disparities
- Public-Private Partnership will be enhanced
- Efficient and effective use of resources
- Enhanced community participation (planning, M&E, regulation enforcement, policy formulation) and ownership, satisfaction
- Gender mainstreaming

Strategic Theme 4: Excellence in health system capacity;

This theme refers to the enhancement of resources for health, which includes human and financial resources, health infrastructure and supplies that are accessible to communities. The theme focuses mainly on development and retention of skilled human resources for health with the right mix of professionals. It also refers to professional development to promote respectful and compassionate care. Health infrastructure includes construction of new facilities, rehabilitation of older ones and equipping these facilities as per national standards. It emphasizes availability of adequate water and sanitation facilities as well as power and internet connectivity in health facilities. Supply chain is about ensuring commodity security and delivery of safe, effective and affordable essential medicines at all levels. This theme highly encourages use of technologies and innovations.

Strategic Result: Communities are served by qualified, committed and motivated providers in health facilities that have the necessary equipment, tools and technological solutions as per the standards.

What it includes (key concept):

- Health workforce – training, deployment, career development & improved HRH management and promotion of compassionate and respectful care

- Construction of new facilities and rehabilitation of older ones
- Health care financing - resource mobilization and risk pooling (Health Insurance)
- Supply chain- planning, quantification, selection, procurement, storage, distribution and disposal
- Technology – adoption of new technology and practices to improve healthcare delivery
- Effective medical equipment management
- Information and Communication Technology for health

How will successes be measured?

- Development of critical work force skills
- Enhanced retention of qualified work force
- All segments of communities are accessing standardized health facilities (women, people with disabilities etc.)
- Stockage of essential drugs at all facilities
- Functionality of medical equipment
- Communities' enrolment in health insurance schemes.

How will these help in moving to a higher level of success?

- Institutionalizing mechanism for staff motivation and retention
- Appropriate planning and implementation of in-service and pre-service trainings
- Implementation and scale-up of health insurance schemes
- Strengthen implementation of health care financing mechanisms
- Ensure health facility to population ratio is met
- Ensure health facilities have basic utilities (electricity, water, telephone etc.)
- Use of ICT

4.4.3. Strategic Perspectives

Perspective	Key Concept	Key Questions
Community	'Ownership" 'Empowerment"	How can we enable the Community to produce its own health?
Financial/ Stewardship	'Efficiency"	How do we mobilize and utilize more resources effectively and efficiently?
Internal process	'Quality"	How can we enhance our integration & responsiveness in order to improve quality, timeliness, & functionality?
Capacity building	'Capacity"	To excel in our processes, what capacities must our organization have and improve?

4.4.4. The Health Sector Strategic Management House

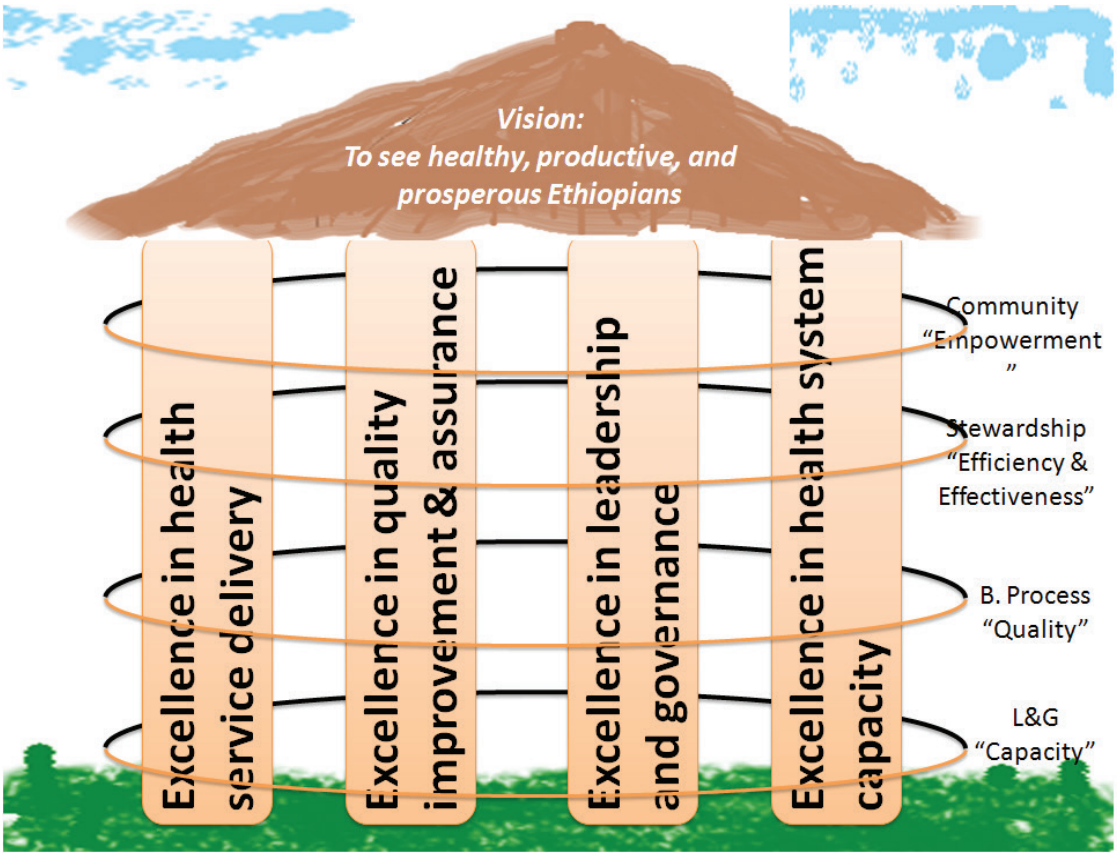


Figure 7: The health sector strategic management house

4.5 Strategic Objectives (SO) and Strategy Map

4.5.1. List of Strategic Objectives

Perspective	Strategic Objectives (SO)
Community	C1: Improve Health Status C2: Enhance Community Ownership
Financial Stewardship	F1: Improve Efficiency and Effectiveness
Internal Process	P1: Improve Equitable Access to Quality Health Services P2: Improve Health Emergency Risk Management P3: Enhance Good Governance P4: Improve Regulatory System P5: Improve Supply Chain and Logistic Management P6: Improve Community Participation & Engagement P7: Improve Resource Mobilization P8: Improve Research and Evidence for Decision-Making
Learning and Growth	CB1: Enhance Use of Technology & Innovation CB2: Improve Development & Management of HRH CB3: Improve Health Infrastructure CB4: Enhance Policy and Procedures

4.5.2. Objective Commentary

C1: Improve Health Status

Description:

This objective describes the achievements in health status of the population and factors affecting it. It addresses the reduction of morbidity and mortality so that citizens will be healthier, more productive and socially active. It also ensures that social determinants of health are addressed through proactive multi-sectoral collaboration.

It helps to articulate what makes a community healthy or unhealthy and learn more about strategies that could work to improve health status.

Therefore, measuring health outcomes and their upstream determinants will help to coordinate the efforts of public health agencies, the healthcare delivery system and many other entities in communities to improve health. These measures monitor how well we are managing the responsibility that we all share and helps to set priorities.

Outcome:

Enhanced quality of life, reduced morbidity and mortality and higher life expectancy

Key component:

- Analysis of health status of individuals, families and communities
- Defining factors that threaten the health of the population as well as best practices that promote health
- Addressing social determinants of health

C2: Enhance Community Ownership

Description:

Enhancing community ownership refers to the end result of empowering communities to produce their own health. It addresses the social, cultural, political and economic determinants that underpin health, and seeks to create a solidarity movement within communities, promote locally salient innovations and build partnerships with other sectors in finding appropriate solutions to prevalent problems. Community ownership is a much higher result of community empowerment that ensures the community does health and health-related activities because it truly believes in it and does it for its own wellbeing. Hence, community ownership ensures sustainable development in the health of the community. Community ownership guarantees self-reliance and solidarity at the population level, as citizens understand health is a public good. In community ownership, individual members of the community will be responsible for their own health and will have the mechanism to foster support for community members at the individual level as well as for collective accountability. As a result, individual actions will be healthy, leading to healthy Families and communities. It describes the focus on community ownership in decision-making in all matters affecting their own health;. exerting necessary actions to make sure community voices are reflected in decision-making and have better control over their own health. Community ownership influences the health system positively as it plays a decisive role in governance of health facilities and demand for quality and equitable service.

It implies communities understand individual health behavior can affect the public and hence each member of the community behaves responsibly to create a model family, model development teams, model kebeles and model woredas. The level of knowledge and skills of community members will be evaluated through competency testing based on the Ethiopian occupational standards for the health extension programme.

Outcome:

Model families, model development teams, model kebeles and model woredas

Key Components:

- ✓ Model family, Kebele and Woreda graduation
- ✓ Competency evaluation of households
- ✓ Scaling-up best practices
- ✓ Self-reliance
- ✓ Recognition schemes for best performers
- ✓ Affirmative action, gender mainstreaming

F1: Improve Efficiency and Effectiveness

Description:

This strategic objective is about proper allocation, efficient utilization, tracking and controlling of resources. It also entails harmonization and alignment among stakeholders to strengthen the financial and procurement management system of the government, to minimize wastage of resources and duplication of efforts. Due emphasis will be given to equity in resource allocation.

There will be closer monitoring of program implementation and follow-up of timely and proper liquidation of financial resources in order to ensure improved accountability at all levels of the health sector. In addition, facility governance and management of revenues will be strengthened and supported for better utilization of resources.

The government will work towards making equitable essential health services accessible without financial hardship and thereby increasing the effectiveness and efficient utilization of resources and assuring value for money.

In the implementation of the HSTP, the health sector will look into opportunities for efficiency gains. This will be done through a regular and thorough analysis of leading causes of inefficiency in the health system and implementing strategies to reduce them. Efficiency is a measure of the quality and/or quantity of output (i.e. health outcomes or services) for a given level of input (i.e. cost). So efficiency gains could help to contain costs by reducing the costs of service delivery. Seeking efficiency gains should be seen as a means of extending coverage for the same cost.

The strategic objective will help to achieve the health outcomes through enhancing evidence-based resource allocation; building human resource capacity for better program implementation and resource absorption; simplifying the disbursement and accounting for funds and establishing sound procurement procedures and systems. Development partners will be urged to reduce tying aid and to simplify fund management; this will help to reduce transaction costs and improve budget absorption as agreed in the IHP+ compact.

Outcome:

- ✓ Equitable resource allocation
- ✓ Significant improvements in resource absorptive capacity
- ✓ Improved efficiency of the health system

Key components:

- Integrated Financial Management Information System (IFMIS)
- Financial management and accountability development program
- Result based financing scheme
- Efficiency gains
- Effective governance
- Pooled procurement

P1: Improve Equitable Access to Quality Health Services

Description

This strategic objective is meant to improve equitable access to full spectrum of essential, quality health services, including health promotion, disease prevention and treatment, rehabilitation and palliative care. It requires coverage with high impact interventions that address the most important causes of disease and mortality. This strategic objective requires the quality of health services to be good enough to improve the health of those receiving services. This will result in improved effective health service coverage.

Equity is the absence of avoidable or remediable differences among populations or groups defined socially, economically, demographically or geographically. Thus, this strategic objective deals with reducing disparities between regions and groups with different levels of underlying social advantage/disadvantage (women, youth, children, the wealthy, the poor and people with disabilities) in the provision of quality health services.

While ensuring equitable access to health services, it also focuses on quality planning and quality improvement activities in the health care delivery system with provision of customer-centered, efficient, effective, timely and safe health services.

It is expected that better and equitable accessibility to quality health services will then lead to improvements in the health of mothers, neonates, children, adolescents and youth, and the elderly. It is seen as an important strategy to improve nutritional status; improve hygiene and environmental health and reduce the incidence and prevalence of HIV/AIDS, TB, malaria and other communicable and non-communicable diseases.

Outcome:

- Improved health service utilization
- Improved population coverage with high impact interventions with reduced inequity.

Key components

- Health Extension Programme
- Scale-up effective health interventions
  - Reproductive, maternal, newborn and child health
  - Adolescent health
  - Nutrition services
  - Hygiene and environmental health
  - Prevention and control of major communicable and non-communicable diseases
  - Mental health services
  - Eye health services
  - Oral health services
  - Essential surgical interventions
  - Injury prevention and emergency medical service

- Continuous quality improvement processes in health facilities, health administrative structures and community level Health Development Army to identify areas for improvement in their domains
    - Primary health care unit and hospital reform
    - Referral system
    - Blood and transfusion safety
    - Laboratory and diagnostic services

P2: Improve Health Emergency Risk Management

Description:

This strategic objective is meant to improve the prevention, mitigation, early detection and rapid response to any crises, which directly or indirectly impact the health, social, economic and political wellbeing of the society. Furthermore, improved risk management system – minimizing crises reaction and response- will keep the sector on track to move forward in all other strategic objectives and plans.

The range of threats to public health faced by countries worldwide is broad and highly diverse and includes infectious disease outbreaks, unsafe food and water, chemical and radiation contamination, natural and technological hazards, wars and other societal conflicts and the health consequences of climate change. To help meet these and other challenges, investments will be made to strengthen the capacity for emergency risk management incorporating measures for prevention, mitigation, preparedness, response and recovery.

It is seen as an important strategy to anticipate, prevent, prepare for, detect and respond to, control and recover from the consequences of public health threats so that health and economic impacts are minimized. It also requires implementation of and compliance with international health regulation core competencies.

The health sector requires relationships with and capacities of other sectors, which span the spectrum of emergency risk management measures at community, regional, national and international levels. The health risks of an emergency can be mitigated by decreasing exposure and human susceptibility to hazards, and building resilience of individuals, communities and the country to protect health, respond and recover effectively from the impact of hazards.

The objective entails proactive prevention of hazards, early detection, rapid response and recovery from disasters, thereby saving lives and improving quality of life with no or minimal disruption of daily life. It calls for development of national and community health emergency risk management systems with emphasis on primary prevention, vulnerability reduction and strengthening community, health facility, and health system resilience by reinforcing a community-centered primary health care approach.

Climate change is the greatest global health threat of the 21st century. Should we fail to mitigate climate change in the next few years, deaths from infectious diseases, obesity, diabetes and heart disease among others will be high. While reducing, mitigating or eliminating contributors to climate change, the disease surveillance system should remain alert at all times to unusual occurrences of diseases so that adequate preparation and response is in place without affecting the routine activities of people and nations. Hence, building of health systems requires a strong public health emergency management system that is well versed in climate change and its consequences on health.

Outcome:

- Minimized occurrence of outbreaks and consequences of disasters and outbreaks.

Key component:

- ✓ Emergency risk management for health as a national and local priority
- ✓ Health risk assessment and early warning with robust surveillance and monitoring of potential threats to health, particularly from biological, natural and technological sources to enable early detection and warning
- ✓ Education and information to build a culture of health, safety and resilience at all levels
- ✓ Reduction of underlying risk factors to health and health systems
- ✓ Emergency preparedness for effective health response and recovery at all levels

  Meeting international health regulation core capacities

P3: Enhance Good Governance

Description

The strategic objective is about enhancing good governance in the health sector. It requires implementation of the principles of good governance in the health sector. These principles include rule of law, transparency, inclusiveness and equity, responsiveness, efficiency and effectiveness and participatory engagement of citizens. For good governance to prevail, there is a need for strong leadership and commitment by governments, robust participation of civil societies and involvement of the private sector in upholding the principles of good governance. Good governance in health systems promotes effective delivery of health services. Also critical are appropriate standards, incentives, information and accountabilities, which induce high performance from public providers. Improved public performance is one means to enhance returns on public health investments. It can also reduce health service quality disparities. Moreover, good governance discourages corruption and rent-seeking practices, which directly affects the performance of the health sector. To improve governance and subsequently, the performance of health systems, it is critical to identify the weak points that contribute to poor performance and corruption.

Good governance allows citizens to express their preferences and be involved in the decision-making processes and assures that the views of all segments of the population, particularly the voices of the most vulnerable segments of society, are heard and reflected in decision-making. It is also responsive to the present and future needs of society.

This will increase citizen confidence in the health system and enhance community ownership.

Outcome:

Good governance at all levels of the health sector

Key components

- Participatory engagement of civil servants to improve the bureaucracy and service delivery with continuous quality improvement processes central to the business process of the health sector

- Development and dissemination of patient and citizen charters and timely measurement of progress against the charters
- Accountability and transparency through performance measurement, engagement of the public and civil societies
- Organized engagement of the private sector
- Complaint handling
- Public participation by holding town-hall meetings, public conference etc.
- Organizational restructuring where necessary

P4: Improve Regulatory Systems

Description:

This strategic objective refers to improving the regulatory system to a level that is truly functional. Functional regulatory system refers to implementation of an effective, transparent and accountable system that ensures adherence by all state and non-state actors to the standards set by the country's rules and regulations. Although the country has so far managed to establish basic components of the regularly system at various levels, a lot remains to be implemented to achieve a truly functional regulatory system. Further, the regulatory system needs to respond to the ever-increasing number of players, which is expected as the country's health care coverage, and expenditure on services and products continues to grow. Regulatory work, being a specialty, requires development and maintenance of highly trained and skilled staff. The fact that it is related to control of highly lucrative products and services also makes it vulnerable to corruption. Therefore, it is critical to find and implement ways to develop and maintain such skills while ensuring ethical standards and accountability.

This strategic objective will be achieved through:

- Health facility compliance with national standards
- Pharma co-vigilance & post marketing surveillance of products
- Hygiene and environmental health regulation
- Minimizing or eliminating adverse contributors to climate change
- Support local manufacturing of quality pharmaceutical products and supplies
- Regulatory information dissemination through information communication technologies
- Safety and quality regulation of blood and blood products & Haemovigilance.

Outcome:

- Assurance of safety and quality of health and health-related products and services

Key Components:

- Food safety and quality
- Regulation of drugs, equipment and supplies
- Regulation of Health professionals

- Regulation of health care facilities
- Safety and efficacy of Traditional medicine and practice
- Information communication technology supported regulation
- Hygiene and environmental regulation

P5: Improve supply chain and logistics management

Description:

The focus of this strategic objective is to ensure access to quality assured, safe, effective and affordable essential medicines with which the sector intends to respond to the majority of health problems of the society; significant reduction in pharmaceutical wastage and improved rational drug use. A strong pharmaceutical supply chain supported by an effective logistic management system ensures that the right quality product, in the right quantities, and in the right condition is delivered to the right place, at the right time, for a reasonable cost. Efforts will be made to further strengthen the integration of supply management into health system development; develop an efficient mix of public-private partnerships; maintain medicines quality in distribution channels and ultimately increase access to essential drugs.

In the coming five years the per-capita expenditure on essential medicines and health technologies will significantly increase. Therefore, focus will be given to further ensure proximity of distribution hubs to health facilities at all corners of the country, efficient systems for inventory, fleet and information management, maximizing efficiency in both quantification and procurement, ensuring proper use through health facility-based solutions such as Drug and Therapeutics Committees (DTCs). This will also be augmented by equipping existing distribution hubs as well as expansion to realize equitable access, the establishment of pharmaceutical waste management facility, strengthened Revolving Drug Fund (RDF), training competent and adequate number of human resources for health supply chain management at all levels and ensuring strong coordination mechanisms with key stakeholders.

Outcome:

Assurance of uninterrupted supply of essential pharmaceuticals that are of assured quality, safety, efficacy and cost-effective with their proper use.

Key components:

- Revolving Drug Fund
- Integrated information management system for pharmaceutical supply and services
- Selection of essential medicines, quantification and procurement efficiency
- Warehouse, inventory, fleet and distribution management systems
- Auditable pharmaceutical transactions and services
- Supply chain modeling to analyze needs for management and scale-up of commodities
- Community pharmacies
- Rational use of medicines
- Integrated pharmaceutical waste management

P6: Improve community participation and engagement:

Description

This means creating awareness, transferring knowledge and skills to the community, and ensuring their participation and engagement in planning, implementation, monitoring and evaluation of health activities to empower the community so that they are able to manage their own health.

This will be ensured through strengthening functionality of Health Development Army (HDA). The HDA is a participatory engagement of the community, particularly women groups, in identifying locally salient health problems, coming up with solutions to address bottlenecks and improve the uptake of critical services to improve the health of the community. The HDA builds on the critical mass of model families and creates volunteer leaders that scale-up the dissemination of knowledge, innovation and service utilization through social networks. Over the past four years, the health extension workers, with support of local leadership and health centers, have been working in organizing women into a group of 30 households in a neighborhood, referred to as a health development team, to provide the basis for community conversation and broader peer support. The health development team is further divided into a group of six where one is a leader and the five are followers, commonly referred as one to five networks. The one-to-five network frequently meets as the women are close neighbors and meet over coffee or other social networks and they support one another in practicing healthy life styles and form the basis of a key strategy to scale-up best practices through organized engagement of the community. Through efforts over the past four years, there are now close to three million HDA leaders across the country.

The HDA will be supported technically by HEWs to scale-up the implementation of all packages of the HEP. They will be actively engaged in the promotion and prevention activities at household and community levels, including the regular coordination of structured community conversation sessions with the guidance of the HEWs. HDA will have extensive responsibilities for social mobilization in creating an enabling environment to expand HEP deeper into communities and families to ensure community ownership. Over the next five years, a lot of investment will be made to assess the competency levels of HDA leaders and model families based on Ethiopian occupational standards (level I and II). This is expected to consolidate the gains the health sector has made and reinforce the knowledge and skills of community members.

Community empowerment is a process where people work together to make change happen in their communities by having more power and influence over what matters to them. Community empowerment addresses the social, cultural, political and economic determinants that underpin health, and seeks to build partnerships with other sectors in finding solutions.

This objective also describes representation of communities on the governance boards of all public sector health facilities.

Outcome:

- Community empowerment; communities gain control over their health
- Improved healthy behavior
- Households able to produce their own health

Key components:

- Strengthen HDA
- Competency testing of model families (HDA leaders)
- Knowledge and skills transfer
- Shared responsibility of the community
- Community-based resource generation

P7: Improve resource mobilization

Description

This strategic objective includes a proactive approach in the mobilization of resources from domestic and international sources through establishment and strengthening of risk pooling mechanisms, increasing the health budget from treasury, collection of revenues by health institutions, strengthening international health partnerships and enhancement of pooled funding; public-private partnerships and maximizing collaboration with national and international civil society organizations and NGOs.

The capacity of health administrations at all levels will be built to develop evidence-based plans to enable health managers use evidence for active negotiation with administrative councils in order to increase the Government's allocation to health. It includes scaling-up of CBHI for citizens in the informal sector and implementing SHI for those in the formal sector. The necessary institutional framework will be setup for efficient collection of health insurance contributions from the systems and increase the effective health insurance coverage of the population. Furthermore, the possibility of new innovative domestic financing mechanisms will be explored to increase availability of finance for the implementation of HSTP.

Resource mobilization includes effective coordination of available human resources and technologies in addition to mobilizing finance. As health is affected by varied determinants, multi-sectoral collaboration is key to leverage resources and maximize impact. For instance, climate change affects the social and environmental determinants of health – clean air, safe drinking water, sufficient food and secure shelter. Partnership in addressing climate change is a key strategic approach to ensure better health in a sustainable manner.

Outcome:

Adequate resources are mobilized and made available for the financing of the health sector and ensure financial protection of citizens.

Key components:

- Progressively increasing government budget allocation to the health sector
- Strengthen healthcare financing reform implementation
- Scale-up health insurance schemes (both community based and social health insurance),
- Introduce proactive and innovative domestic financing mechanisms,
- Fund mobilization from bilateral and multilateral development partners
- Attract new donors to the health sector

- Harmonization and alignment
- Public-Private Partnerships
- Multi-sectoral approach
- Community mobilization

P8: Improve research and evidence for decision-making

Description

This objective is about improving decision making through evidence generation, translation and dissemination. It promotes and advocates the culture of generating quality data, ensuring transmission and acquisition of complete and timely data, verification, analysis and synthesis of data from multiple sources and using evidence at all levels to improve quality and equity of health services. The process of evidence generation and decision-making includes research, surveys, surveillance, HMIS, civil registration & vital statistics (CRVS), administrative (financial, HR, logistics management) information systems, monitoring and evaluation and planning.

Outcome:

Evidence based decision-making.

Determination of progress and impact, based on quality data

Key components:

- ✓ **Health sector policy and planning**: The policy and planning processes start from identification of policy issues, health system gaps, the health need of the population that need to be addressed through integrated (harmonized) and aligned policy and planning. It is designed to answer and satisfy the needs and expectations of the general public through an iterative and participatory development of policy and planning. It uses a top-down and bottom-up approach.
- **Health Information System**: this is a system that involves data generation, compilation, verification, analyses, synthesis, communication and use. It collects programmatic, epidemiological and administrative data from the health sector and other relevant sectors, analyses the data and ensures their overall quality, relevance and timeliness, and converts data into information for health-related decision-making
- **Health Research:** Research undertaken in any discipline or combination of disciplines that seek to understand the impact of health policies, programs, processes, actions, or events originating in any sector including but not limited to the health sector itself and encompassing biological, economic, environmental, political, social and other determinants of health. Of particular focus will be operational research tailored to service delivery and geared towards addressing key challenges and bottlenecks in achieving high service coverage, better quality and desired impacts.
- **Knowledge Management:** A process of creating, capturing, storing, retrieving, sharing, and managing knowledge and effectively using it for informed decision making.

CB1: Enhance use of technology and innovation

Description:

This strategic objective involves enhancing use of the existing technology, introduction of new technology, technology transfer and development and use of local technology. It also addresses finding better ways of doing things through more effective products, processes, services, technologies or ideas.

Innovation is defined as the process of ideation, evaluation, selection, development and implementation of new or improved products, services or programs.

Technologies and innovations are critical for environmental impact assessments and planning for tailored mitigation.. Technologies and innovations need to consider climate change in terms of bringing practical solutions to mitigate the effect of climate change on people and the environment as well as minimize negative contribution to climate change.

Outcome:

Efficient and effective internal business processes of the health system and self-reliance.

Key components:

- ✓ Biotechnology
- ✓ Use of eHealth services (eHMIS, EMR, M-health)
- ✓ Telemedicine
- ✓ Tele education
- ✓ Technology transfer for vaccine and diagnostic materials production

CB2: Improve development and management of human resources for health

Description:

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 engaging students of health science 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.

Outcome:

Availability of adequate, competent, motivated and committed health professionals

Key components:

- ✓ Compassionate, respectful and caring health professionals
- ✓ Strengthen the HRH strategy and planning at all levels
- ✓ Strengthen quality of pre-service training

- ✓ Continuing Professional Development (CPD)
- ✓ Training and deployment of health workers with appropriate skill mix and geographic distribution
- ✓ Enhance human resources management practice including motivation and retention schemes
- ✓ Strengthen Human Resources Information System (HRIS)
- ✓ Enhance gender mainstreaming capacity of the health workforce

CB3: Improve health infrastructure

Description

This strategic objective encompasses the expansion and standardization of health and health-related facilities. It involves development of standard design of health infrastructures, carrying out their construction, maintenance, renovation, rehabilitation as well as equipping and furnishing them in a user-friendly manner. Utilities (water, sanitation and power) are among key determinants of functionality of health infrastructures that require a great deal of attention in management and expansion of health and health-related facilities. It also includes enhancing medical equipment management and developing basic ICT infrastructure for speedy and reliable services (connectivity, Health-Net, computer and accessories).

Emphasis will be given in setting up maintenance and facility management capability across all levels of the system. Furthermore, standardization of facility designs for primary, secondary and tertiary care facilities will be implemented.

Outcome:

- Create standardized and functional health facilities and ICT infrastructure for health and health-related services.

Key components:

- Construction of health and health-related facilities (hospitals, blood banks, quality control laboratories, staff residences, medical equipment maintenance workshops, drug distribution hubs)
- Expansion and rehabilitation of hospitals and health centers
- Maintenance and renovation of health and health-related facilities
- Provision of utilities
- Deployment and expansion of ICT infrastructure
- Adoption of medical equipment, construction and ICT standards

Provide medical equipment maintenance tools and devices

CB4: Enhance policies and procedures

Description

This strategic objective encompasses strengthening of health systems through continuous analysis and improvement of existing health and health-related policies, proclamations, regulations, guidelines, standards, directives and other health-related legal frameworks in the spirit of mainstreaming health into all policies. It also involves preparation, enforcement and follow-up of polices as well as health-related legal frameworks. It ensures programs and plans are in compliance with existing policies and procedures of the sector. Ensure wider consultation and involvement of all relevant sectors and stakeholders so that the national health policies and plans are more robust and get implemented effectively.

The objective gives due emphasis to assessing fairness and equity in the health system. Achieving equity in health requires a commitment to monitoring health inequalities which, in turn, necessitates strong, equity-oriented health information systems. High quality data and robust monitoring systems ensure that efforts can be targeted appropriately and that progress can be tracked. The health information system will be strengthened to generate better data and evidence to measure progress. Gender mainstreaming via establishing appropriate mechanisms and having gender concerns incorporated into policy and planning processes at all levels of the health sector (federal, regions, woreda, hospitals etc.)

This strategic objective also focuses on ensuring that health is addressed in other sectors' policies and strategies in order to foste healthy public policies.

Outcome:

- Enabling policy and legal environment that enhance business processes in the health sector.

Key components:

- Enabling frameworks and laws to protect the right of citizens to equitable and quality health care
- Regular monitoring and review of the state of inequality in the health sector to develop strategies for redress
- Climate resilience and adaptability framework for the health sector
- Development of policies, standards, laws, manuals and procedures for betterment of the health of all Ethiopians

4.5.3. Strategy Map

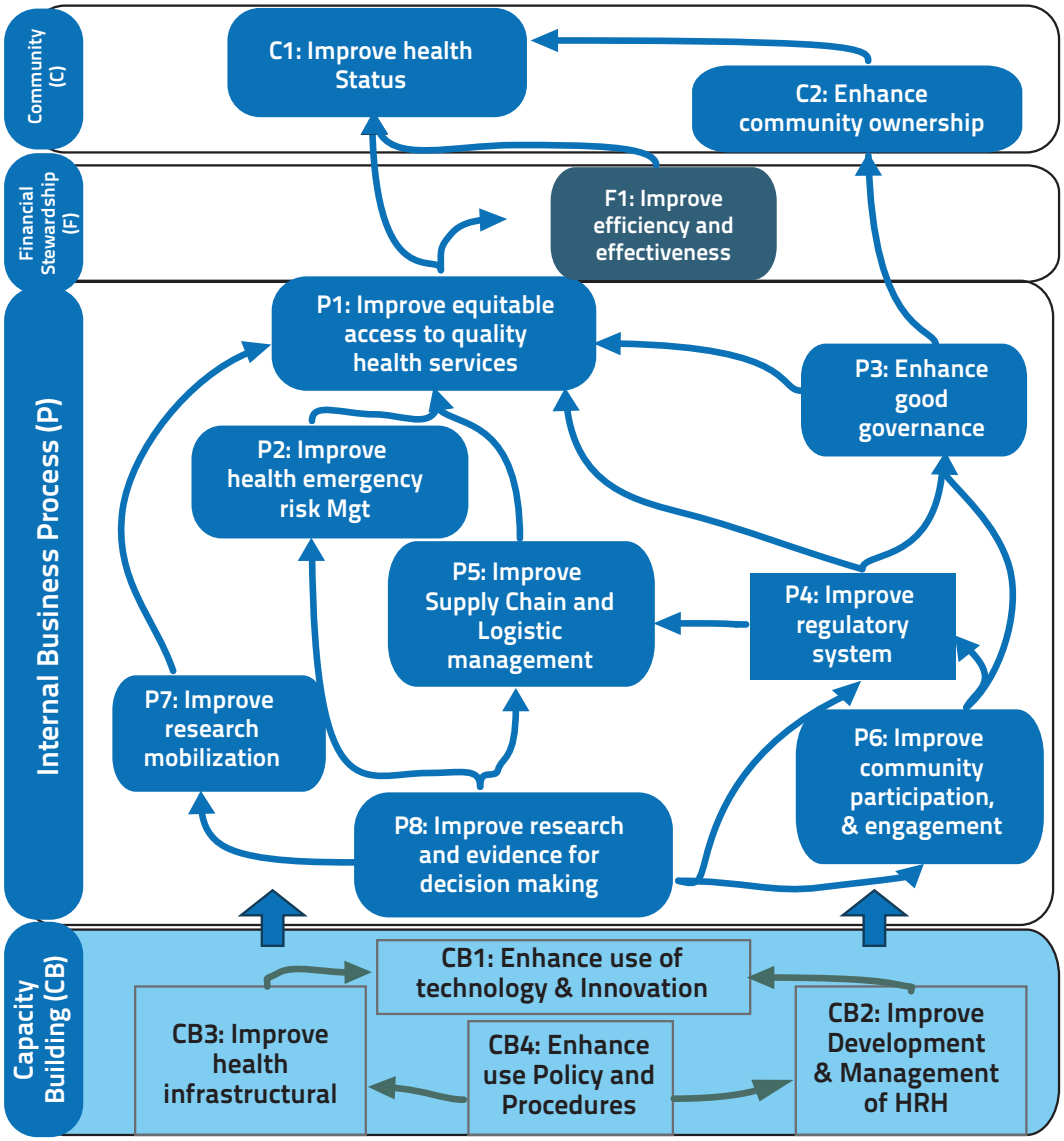


Figure 8: HSTP Strategy Map

4.6. Performance Measures and Strategic Initiatives

4.6.1. C1: Improve Health Status

Performance measures:

By the end of the year 2020,

1. Increase Life Expectancy at birth from 64 years to 69 years
2. Reduce Maternal Mortality Ratio (MMR) from 420 to 199 per 100,000 live births
3. Reduce Under five-year, Infant and Neonatal mortality rates from 64, 44 and 28 to 30, 20 and 10 per 1,000 live births
4. Reduce childhood stunting, wasting and under-weight in under-5 year from 40%, 9% and 25% to 26%, 4.9% and 13%, respectively

5. Reduce HIV incidence by at least 60% compared with 2010 and achieve zero new infections among children
6. Reduction in number of TB deaths and incidence rate by 35% and 20% respectively compared with 2015
7. Reduce malaria case incidence and mortality by at least 40% each compared with 2015.
8. Stabilize and then reduce deaths and injuries from road traffic accidents
9. Reduce percentage of premature mortality from NCDs by 12.5% from its current level in 2015

Strategic Initiatives:

This strategic objective is the result of the achievements of the strategic objectives listed in the driver perspectives (business processes, learning and growth). In addition, the outcome in health status is highly influenced by the overall socio-economic development of the country. The impact targets have been set in line with the new sustainable development goals (SDG) and with the ambition of putting Ethiopia on track to meet the SDG targets by 2030. A key element of the HSTP targets will be intensified efforts to complete and expand the MDGs agenda, with accelerated action to pave way for the goal of ending the AIDS, tuberculosis and malaria epidemics as well as neglected tropical diseases by 2030 and lastly, end preventable deaths of mothers, newborns and children under 5 years of age in the same period. A new focus will be brought on non-communicable diseases through prevention and treatment, promoting mental health and wellbeing. Therefore, to make positive contribution to the socio-economic development and accelerate progress towards the health outcomes, the health sector will launch initiatives that address the social determinants of health and strengthen inter-sectoral collaboration with line ministries and other stakeholders.

1. Promote health in all policies and strategies;
2. Promote and strengthen regional and global partnership;

4.6.2. C2: Enhance Community Ownership

Performance measures:

By the end of the year 2020

1. 80% of Kebeles will graduate as model kebeles
2. At least three million households will be tested for level 1 HEP competency
3. Community contribution (both in kind and cash) up to 1 Billion USD in five years

Strategic Initiatives:

The hallmark of the HEP has been the graduation of model families, which means households acquiring the necessary knowledge, skills and behavior change that help them have better control over their health. In the HSTP, strategic initiatives will be implemented to consolidate the knowledge and skills of households and work towards graduation of model Kebeles where all households are models. The community will also be supported to have its critical voice heard in the quality and equity of health services. Under this strategic objective, the following strategic initiatives will be implemented:

1. Model Kebele graduation: this requires reaching all households and graduating them as models and scaling-up of best practices to have better outcomes at community level.
2. Certificate of competency evaluation of households based on HEP standards
3. Self-reliance movements
4. Community representation at health facility governing boards and regular town hall meetings and public conferences

4.6.3. F1: Improve efficiency and effectiveness

Performance measures:

1. Increase budge utilization and liquidation rate to 100%
2. Reduce catastrophic out-of-pocket expenditure exceeding 40% from 3% to 2.5%

Strategic Initiatives:

1. Financial management, transparency and accountability development program
2. Rollout integrated financial management information system
3. Timely and efficient procurement and logistics management
4. Property administration and management enhancement
5. Scale-up community based health insurance and social health insurance schemes
6. Efficient facility revenue utilization
7. Efficiency gain
8. Regular financial and performance audits

4.6.4. P1: Improve Equitable Access to Quality Health Services

Performance measures:

By the end of 2020

1. Reproductive, Maternal, Neonatal, Child, Adolescent and Youth Health (RMNCAYH)
   a. Increase Contraceptive Prevalence Rate (CPR) from 42% to 55%
   b. Reduce Total Fertility Rate (TFR) from 4.1 to 3
   c. Reduce unmet need for family planning from 24% to 10%
   d. Reduce adolescent/teen age pregnancy rate from 12% to 3%
   e. Increase proportion of women having at least 4 visits of Antenatal Care from 68% to 95%
   f. Increase deliveries attended by skilled health personnel from 60% % to 90%.
   g. Increase postnatal care coverage from 90% to 95%

h. Increase the proportion of HIV positive pregnant mothers who received ART to prevent MTCT of HIV from 59% to more than 95%

i. Reduce prevalence of obstetric fistula to less than 1% of all obstructed labour

j. Increase the proportion of pentavalent 3 immunization from 94% to 98%, measles immunization from to 90% to 95% and fully immunized children, from 86% to 95% respectively

2. Nutrition

   a. Increase proportion of children ages 6-59 months who received vitamin A supplementation to 95%

   b. Increase availability of quality assured iodized salt to 100%

   c. Increase proportion of under 5 children with regular growth monitoring to 95%

3. Prevention and control of communicable and non-communicable diseases

   a. 90% of all people living with HIV will know their HIV status; 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; 90% of all people receiving antiretroviral therapy will have viral suppression

   b. Increase TB case detection rate from 61% to 87%; TB cure rate from 78% to 90%

   c. Achieve and maintain universal coverage of malaria control strategies (vector control, diagnosis and treatment)

   d. Sub-national elimination of malaria in 50 selected woredas

   e. Achieve at least 90% population therapeutic coverage of all NTDs targeted for mass drug administration.

   f. Reduce prevalence of trachomatous trichiasis (TT) from 1.95% to less than 1%

   g. Increase proportion of women ages 30-49 years screened for cervical cancers from 0.6% to 20%

   h. Reduce the prevalence of current khat consumption persons ages 15+ by 35%

   i. Make mental health services available in every woreda

4. Hygiene and environmental health

   a. Increase proportion of households with access to improved latrines to 82%

   b. Increase proportion of Open Defecation Free (ODF) kebeles to 82%

5. Clinical services

   a. Increase Per Capita Outpatient utilization rate from 0.48 to 2

   b. Increase Bed Occupancy Rate from 65% to 85%

   c. Reduce elective surgery waiting time to less than one month in every hospital

   d. ISO 15189 and/or 17025 accreditation of all general and referral hospital laboratories

   e. Increase proportion of blood collected from VNRBDs (voluntary, non-remunerated blood donation) from 62% to 100%

Strategic Initiatives:

Reproductive, Maternal, Neonatal, Child, Adolescent and Youth Health

1. Universal access to Family Planning information and services
2. Scale-up postpartum family planning services to all woredas
3. Strengthen adolescent and youth focused reproductive health services
4. Universal access to essential high impact maternal, neonatal and child health services
5. Scale-up respectful maternity care in all health facilities
6. Eliminate obstetric fistula and clear all backlog cases of fistula and pelvic organ prolapse
7. Enhance implementation of routine immunization improvement initiative

Nutrition

8. Scale-up community-based nutrition (CBN) program and the first 1000 days initiative
9. Implement the Sequota declaration of ending child under nutrition
10. Implement Baby-friendly hospitals initiative in all hospitals

Prevention and control of communicable and non-communicable diseases

11. Intensify targeted HIV Prevention focusing on youth and MARPs
12. Implement Fast-Track Cities Initiative against HIV
13. Enhance implementation of integrated, patient-centered TB prevention and care
14. Reduce the burden of leprosy and access to quality services
15. Ensure universal access to malaria prevention, diagnosis and treatment
16. Accelerate efforts towards sub-national malaria elimination from selected woredas
17. Integrated Neglected Tropical Diseases (NTD) management
18. Clear TT surgery backlog cases and build sustainable institutional capacity
19. Establish a program for promotion of health across the life course and prevention and control of non-communicable diseases.
20. Decentralize and fully integrate mental health services into primary health care

Hygiene and Environmental Health

21. Implement urban sanitation strategy
22. Scale up Community led and School led total sanitation and hygiene and sanitation marketing
23. Build adaptation and resilience to climate change in health sector

Clinical services

24. Expand physiotherapy and rehabilitation services
25. Strengthen Emergency Medical System with robust pre-hospital and hospital care

26. Scale up essential surgical services
27. Improve diagnostic and imaging services
28. Improve access to specialty services
29. Improve referral and clinical mentorship amongst catchment facilities
30. Improve access and utilization of blood and blood products
31. Improve clean and safe health facility

4.6.5. P2: Improve Health Emergency Risk Management

Performance measures:

1. By end of 2016, meet and sustain international health regulation core capacities
2. 85% of Woredas and health facilities assessed annually for levels of safety, security, and preparedness
3. 85% of epidemics controlled within the standard of mortality
4. 95% of health facilities reporting complete and timely weekly diseases report
5. Increase proportion of identified potential epidemics with adequate Emergency Drug Kits (EDKs) and other supplies from 71% to 95%

Strategic Initiatives:

1. Strengthen health sector and multisectoral coordination mechanisms to facilitate joint action on risk reduction, response and recovery.
2. Education and information to build culture of health, safety and resilience at all levels
3. Enhance regular risk assessment (hazard, vulnerability, and capacity analysis) and early warning; and development of public health risks profile maps for each woreda.
4. Reduction of underlying risk factors to health and health systems
5. Emergency preparedness for effective health system response and recovery at all levels
6. Strengthen real-time surveillance and event monitoring mechanisms (like e-surveillance and linkage of lab networks for surveillance)
7. Establish Emergency Operations Center (EOC)
8. Develop a national health emergency workforce with the right skill mix to enhance standing and surge capacity of the country to respond to emergencies.

4.6.6. P3: Enhance Good Governance

Performance measures:

1. By 2020, developing regions will have performance levels of priority intervention similar to the national average

Strategic Initiatives:

1. Enhance leadership capacity to foster professional education and development with the goal of inspiring and motivating health professionals to be committed and servant to the public.
2. Enhance implementation of patient and citizen charters and track progress
3. Establish public health leadership incubation centers
4. Facilitate gender equity in the leadership and gender mainstreaming
5. Special and targeted support to developing regions to reduce the state of inequality.
6. Strengthen town-hall meetings of health facilities to promote engagement of the public.
7. Introduce Kaizen and strengthen health sector reform for quality improvement
8. Accountability and transparency through performance measurement, engagement of the public and civil societies (e.g. Citizen scorecards)

4.6.7. P4: Improve Regulatory System

Performance measures:

1. Achieve 100% inspection of manufacturers, importers/wholesalers, retailers and health facilities as per the standard
2. Improve consignment laboratory test of food from 14% to 80% and for health products from 3.4% to 25%
3. Improve post marketing surveillance of food from 10% to 100% and for health products from 3% to 55%
4. Improve the monitoring of ADR (Adverse Drug Reaction) to 90% and proportion of validated ADR reports to 100%
5. At least five new local pharmaceutical manufacturers to be compliant with international GMP (Global Manufacturing Practices)
6. Decrease the percentage of substandard medicines circulating in the market from 8% to 1%
7. Increase the number of healthcare facilities that implement the national healthcare facility standards to 100%

Strategic Initiatives:

1. Build and maintain adequate food systems and infrastructures to respond to and manage food safety risks along the entire food chain, including during emergencies
2. Transform the pre-licensing and post-licensing inspection of food and medicines to enhance transparency, accountability, efficiency and effectiveness of the process
3. Strengthen capacity and implement strategies to fast-track the registration of food and medicine based on scientific assessment of their safety, efficacy and quality in order to achieve zero backlog of dossiers and pre-market sample tests
4. Ensure that all premises and practices used to manufacture, store, distribute and dispense pharmaceutical products comply with current guidelines on Good

Manufacturing Practice, Good Storage Practice, Good Distribution Practice and Good Pharmacy Practice.

5. Strengthen the quality management system to ensure that inspections are planned, conducted, documented and followed up in a consistent way, based on risk assessment
6. Strengthen the national quality control laboratory with adequate capacity to undertake quality surveillance.
7. Implement risk-based system of inspection and sampling to monitor quality of products on the market and establish effective recall procedures
8. Coordinate and implement anti-counterfeit medicine program
9. Strengthen quality control testing of each batch of product to verify that products comply with the specifications of the marketing authorization
10. Strengthen Pharma co-vigilance and improve the interface with clinical surveillance
11. Enhance regulation of the safety and quality of blood, blood products, tissues and human organs
12. Implement measures and programs to tackle antimicrobial resistance
13. Development and retention of highly competent and accountable regulatory personnel
14. Strengthen national capacity to control clinical trials to ensure conformity with ethical principles for medical research involving human subjects
15. Strengthen narcotic drugs, psychotropic substances and tobacco control
16. Strengthen regulation of health professionals through transparent, accountable, proportionate, consistent and targeted practices
17. Introduce and scale-up clinical audits in health facilities to ensure quality of practice in health facilities

4.6.8. P5: Improve Supply Chain and Logistic Management

Performance measures:

1. Increase availability of essential drugs for primary, secondary and tertiary healthcare to 100%
2. Reduce wastage rate to less than 2%
3. Increase proportion of essential drugs procured from local manufacturers from 25% to 60%
4. Reduce procurement lead-time from 240 days to 120 days

Strategic Initiatives:

1. Enhance efficiency in selection, quantification and procurement of essential medicines
2. Optimize warehouse, inventory, fleet and distribution management systems
3. Scale-up integrated information management system for pharmaceutical supply and services

4. Scale-up auditable pharmaceutical transaction and services to all health facilities
5. Scale-up community pharmacies
6. Implement innovative strategies to shape the market in order to ensure affordability of essential drugs
7. Strengthen supply chain modeling to analyze needs for management and scale-up of commodities
8. Undertake measures to reduce drug wastage and integrated pharmaceutical waste management
9. Promote rational drug use
10. Improve access to medicines through quality local production – implement the GMP (good manufacturing practice) Roadmap

4.6.9. P6: Improve Community Participation and Engagement

Performance measures:

1. At least 90% of households engaged regularly in the Health Development Army (HDA)

Strategic Initiatives:

1. Roll out the second generation health extension programme
2. Reform and implement urban and pastoralist health extension programs
3. Strengthen the health development army (HDA) to contribute to better health outcomes and climate resilient green economy through empowering individuals, families and communities
4. Increase health literacy and health system literacy of the public to improve quality of care
5. Enhance evidence-based health education and behavioral change communication
6. Strengthen accountability of the health system to the public by implementing strategies to build trust and credibility with communities that their input is honored and acted upon

4.6.10. P7: Improve Resource Mobilization

Performance measures: By 2020

1. Establish community based health insurance (CBHI) schemes in 80% of woredas and enroll at least 80% of households
2. Reduce out-of-pocket health expenditure to less than 15%
3. Increase general government expenditure on health (GGHE) as a share of total general government expenditure (GGE) from 6% to 10%

Strategic Initiatives:

1. Increase government budget allocation to the health sector
2. Strengthen implementation of the healthcare financing reform
3. Scale-up health insurance schemes (both community based and social health insurance),
4. Introduce proactive and innovative domestic financing mechanisms
5. Enhance Health Partnership and Coordination (DPs, CSOs/NGOs, PPPH, FBOs)
6. Strengthen resource tracking and management
7. Mobilize aligned external resources through enforcement of mutual accountability and trust

4.6.11. P8: Improve Research and Evidence for Decision-Making

Performance measures:

1. 100% of expected reports received from reporting units complete and on time
2. Increase proportion of health facilities that conduct lots quality assurance sampling (LQAS) from 36% to 85%
3. 100% of health facilities receive integrated supportive supervision at least once per year

Strategic Initiatives:

1. Implement a 'one plan", 'one budget" and 'one report" approach at all levels of the health system
2. Develop and implement evidence-based, scientifically sound policy decision and planning.
3. Strengthen routine reporting and performance monitoring system
4. Strengthen survey and surveillance systems
5. Build capacity of health facilities, Woredas, Zones, and regions to analyze and use data for decision-making at the local level
6. Supportive supervision and inspection
7. Data quality assurance and auditing
8. Conduct basic and applied research to promote evidence-based practices
9. Promote and institutionalize knowledge management
10. Collaborate with relevant authorities to scale-up civil registration and vital statistics nationally and use the data to inform planning and programming

4.6.12. CB1: Enhance use of Technology and Innovation

Performance measures:

1. Three newly developed production packages (biotechnological vaccines and biological product types) will be produced and distributed in five years.
2. 80% of facilities equipped with medical equipment as per the essential medical equipment list
3. Five social innovations identified, formulated and scaled-up

Strategic Initiatives:

1. Develop an essential medical equipment list based on clinical guidelines to promote access to quality medical devices
2. Strengthen regulations to encourage technology transfer
3. Strengthen the human and laboratory capacity of research institutions and linkages with industries.
4. Strengthen and scale-up the training of biomedical engineers and technicians
5. Establish a medical equipment refurbishment center
6. Build national capacity to do health technology assessment to contextualize global knowledge, support transparent and accountable decision-making.
7. Prioritize and implement strategies to promote biotechnology in health, including traditional medicine, in Ethiopia
8. Establish Grand Challenges Ethiopia, a mechanism to promote innovation and transfer of knowledge and technology from the global innovation market place.

4.6.13. CB2: Improve Development and Management of HRH

Performance measures:

1. Increase stock of health workforce (disaggregated by cadres and regions) from the current 0.8/1000 to 1.6/1000
2. Reduce staff attrition rate from 6.6% to 4%.

Strategic Initiatives:

1. 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.
2. Maintain and improve competence of the health workforce through effective, efficient and sustainable continuing professional development.
3. All hospitals will be staffed with BSc Nurses with emphasis to specialty nursing
4. Provide support for quality audits of all existing pre-service training programs.
5. Universities/Health science colleges industry linkage and Medical schools twinning (National and international).

6. Establish a Comprehensive Human Resources Information system (HRIS).
7. Reduce inequity in geographic distribution and skill and gender mix of health care workers.
8. Enhance Motivation and retention.
9. Enhance performance and productivity.

4.6.14. CB3: Improve Health Infrastructure

Performance measures:

1. Maintain effective primary health care coverage at 100%

Strategic Initiatives:

1. Expand health facilities to meet the national standard and improve access to quality care
2. Build capacity to maintain and rehabilitate health facilities in a timely manner
3. Provision of utilities (water supply, toilets, incinerators, placenta pits, power supply)
4. Develop generic general and tertiary hospital designs and work towards equitable distribution of these facilities
5. Build a medical city in Addis Ababa through public-private partnership
6. Construct a tertiary level children's hospital
7. National digital health and health-related database repository
8. Adoption of medical equipment, construction and ICT standards

4.6.15. CB4: Enhance Policy and Procedures

Performance measures:

- ✓ Availability of policies and procedures

Strategic Initiatives:

1. Develop enabling legal frameworks and policies to ensure equitable access to quality health care
2. Implement mechanisms to regularly monitor and review the state of inequality in the health sector and develop redress strategies
3. Develop, disseminate and implement climate resilience and adaptability framework for the health sector
4. Development and dissemination of policies, standards, laws, manuals and procedures for betterment of the health of all Ethiopians

4.7. The Transformation Agenda

Building on the impressive gains in health outcomes, the health sector has set ambitious targets for the 2015/16-2019/20 cycle. Chapter four details the list of performance measures and strategic initiatives, with the following table summarizing the priorities of the health sector.

Table 5: Summary of the HSTP Priorities

Priorities	Impact	Outcome	Vehicles	Blood lines/ System strengthening
Maternal and Newborn Health	MMR 199/100,000 LB U5MR 30/1,000LB IMR 20/1,000LB NMR 10/1,000LB Stunting 26%, Wasting 4.9%	✓ CPR = 55% ✓ ANC 4 = 95% ✓ Deliveries attended by skilled birth attendants= 90% ✓ Fully Immunized= 95% ✓ Proportion of HIV positive pregnant who received ART to prevent MTCT of HIV =95% ✓ Proportion of exclusive BF =72% ✓ Vit A supplementation= 95%	Health Post 1:3,000-5,000 people Health Center 1:15,000-25,000 people Primary Hospital 1: 60,000-100,000 people General Hospital 1:1-1.5 Million people Tertiary Hospital 1:3.5-5 Million people	▪ Community ownership ▪ Equitable and Quality health service delivery ▪ Robust Human resources development ▪ Reliable supply chain management system ▪ Strong regulatory system ▪ Enhanced HIS and innovation ▪ Effective and efficiency healthcare financing ▪ Transformative leadership and governance
HIV	Reduce incidence by at least 60% compared with 2010 and achieve zero new infections among children	✓ 90% of all people living with HIV will know their HIV status; 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; 90% of all people receiving antiretroviral therapy will have viral suppression		
TB	Reduction in number of TB deathsb and incidence rate by 35% and 20% respectively compared with 2015	✓ TB case detection 87% ✓ Cure Rate for bacteriological confirmed TB cases=90%		
Malaria	Reduce malaria case incidence and mortality by at least 40% each compared with 2015	✓ Sub-national elimination of malaria in 50 selected woredas		

To help achieve the targets set, the sector has identified transformation agendas for this strategic period:

1. Transformation in equity and quality of health care
2. Information revolution
3. Woreda transformation
4. The Caring, Respectful and Compassionate health workforce

4.7.1. Quality and Equity in Health Care

What is quality and equity in health care?

Equity in health care is ensuring availability of the best care to all whereby the quality of care provided does not differ by any personal characteristics including age, gender, socioeconomic status or place of residence unrelated to a patient's reason for seeking care. Quality health care refers to a care which is safe, reliable, patient-centered, efficient and provided to all in need in an equitable and timely manner.

Why is quality and equity in health care a transformation agenda?

Ethiopia has demonstrated remarkable progress in expanding access to health care that resulted in dramatic improvements in critical health indicators. The gains have been a result of improvements in health status amongst disadvantaged groups, particularly those living in rural areas. Despite this progress, substantial inequalities still exist in health outcomes based on differences in economic status, education, place of residence and sex.

Health inequities involve more than inequality with respect to health determinants, access to the resources needed to improve and maintain health or health outcomes. They also entail a failure to avoid or overcome inequalities that infringe on fairness and human rights norms. Therefore, equity in health is concerned with creating equal opportunities for health and with bringing health differentials down to the lowest possible level. Calling attention to the importance of health equity is affirming a fundamental human right. In fact, the right to health is a constitutional right clearly stated in the Ethiopian constitution.

A lot remains to be done towards improving quality of care at each level of the health system. The health system, over the last two decades, has been focussed on improving coverage of essential health services. It is high time to pay attention to the quality and equity of health services at all levels of the system. While it is essential to maintain high coverage of critical services, the health system should be reoriented to continuously assess who amongst the community members are not reached and why they are missed. Otherwise, the health inequity continuously perpetuates a cycle of poverty and will make our country's ambition of eradicating extreme poverty and achieving a middle-income country status very challenging.

Equity and quality are the core goals of the health sector transformation plan, which aspires to build a high performing health system. We should consistently strive to provide health care of good quality to all citizens regardless of any difference in personal characteristics including socio-economic status and geographic location. This requires transforming the approach to health services, facility-community partnership and deeper understanding of the full array of patient and community needs.

How can we ensure availability of good quality and equitable health services?

During implementation of the HSTP, efforts will be doubled up to ensure equity in health care, which has the following important elements;

- ✓ Equal access to essential health services,
- ✓ Equal utilization of equal need, and
- ✓ Equal quality of care for all.

Equal access to essential health services for equal need implies equal entitlement to the available services for everyone, a fair distribution throughout the country based on health care needs and ease of access in each geographical area and the removal of other barriers to access. Some of the barriers to access include lack of income to pay for health services and opportunity costs (e.g. transportation costs), language and cultural barriers, inconvenient working hours of health facilities, physical access to health facilities (which calls for using geographic information system data to understand the spatial distribution of all levels of health facilities and guide decision on future investments for new facilities and upgrading of existing ones).

Equal utilization for equal need refers to a planned intervention to redress differences in the rates of utilization of essential services by different segments of the population. There will be annual reports to show the state of inequality in health in Ethiopia to bring about transparency, accountability and create momentum in redressing avoidable inequalities. It is necessary to use these annual states of inequality reports to design strategies and programs and make a case for aiming for equal utilization rates for equal need.

Equal quality of care ascertains that every Ethiopian has an equal opportunity of accessing essential health services based on need rather than social influence. Equal quality of care for everyone, also implies that providers will strive to put the same commitment into the services they deliver for all sections of the community, so that everyone can expect the same high standard of professional care. Inequities arise in this case when professionals do not put the same effort into their work with some social groups as with others, offering them less of their time or professional expertise. Acceptability is another important component of the quality of care. It may be that some services are inequitable in the way they are organized, making them unacceptable to some sections of the community that they are intended to serve. Only by monitoring acceptability with the users of services will deficiencies of this nature be revealed. Steps can then be taken to make such services more user-friendly.

Achieving equity and quality will not be easy and will not happen overnight— most important of all, it will require a movement. This movement requires strong and able leadership at all levels of the system, robust participation and support of the community to ensure quality and equity of health care. A hands-on leadership training programs, therefore, will be designed and implemented to help health care leaders achieve equity and quality. The trainings aim to create leaders prepared to meet the challenges of health care transformation by improving quality for at-risk populations who experience disparities. The goals are:

- ✓ To arm health care leaders with a rich understanding of the causes of disparities and the vision to implement solutions and transform the health system to deliver high-value health care.
- ✓ To help leaders create strategic plans or projects to advance their work in reducing disparities in a customized way, with practical benefits tailored to every organization.

- ✓ To align the goals of health equity with health care reform, particularly the roll out of the health insurance schemes.

Rendering high quality services starts with enhanced overall local institutional reputation and community trust. This calls for a seamless flow of information within the health system about best practices to improve quality of health care, achieve high level of patient and community satisfaction. An important aspect of information flow is the way in which those providing care give information to service users and the access by communities and individuals to information that will help them manage their own health. Therefore, investments will be made to transform information systems and information flow between different actors in the health system.

Provision of quality health services entails instituting patient-centred health care delivery system. Central to implementing HSTP is ensuring that engagement with patients and the population is at the heart of all policies and strategies for quality improvement, and that this commitment is translated into meaningful action. Strategies to this end include those that target improving health literacy, self-care, and patients' experience with the health system by strengthening the health development army (HDA). Communities and service users will be involved in the governance arrangements of the health system; their views and preferences to be heard and taken into account in decision-making.

Our health facilities should deliver level-specific, high standard care with full package of services including provision of potent medicines. This calls for pragmatic regulations and standards, which offers considerable scope for policy interventions during the implementation of HSTP. Setting standards and monitoring adherence to them through regular inspection and accreditation at varying levels will be strengthened to facilitate higher compliance with evidence. Special emphasis will be given for quality assurance and accreditation of our laboratories to ensure the quality of diagnostic services.

Another important intervention that applies throughout the health system is enhancing organizational capacity of the health sector. At the federal and regional levels, capacity will be built to lead the development of policy, to drive implementation and to keep performance under review. Within communities, the HDA will be supported to build capacity, to identify needs and preferences and to articulate them within the health system. Health facilities will be supported to enhance their ability to develop systems to support quality improvement such as audit and peer-review; their capacity to develop their workforce and equip them with the skill sets needed to deliver quality care; their ability to build an organizational culture which values quality and their ability to use rewards and incentives to promote that culture.

The health sector will continue to be a learning organization with benchmarking of best practices, adapting and scaling them up to improve care delivery systems. Models of care will be recalibrated to reflect currently understood best practices for the delivery of health care generically and to particular population groups, such as groups defined by a common need (e.g. people with chronic conditions) or common characteristics (e.g. children or the elderly). The development of new models of care will normally aim to address all the dimensions of quality (i.e. effective, efficient, accessible, acceptable/patient-centered, equitable and safe) and will seek to improve outcomes by organizing integrated responses.

During the coming five years, the health sector will sharply focus on transforming the health services by making a concerted effort to enhance the performance of developing regions and other administrative zones with historically lower performance in the bigger regions. In addition to the framework outlined above, a detailed roadmap with innovative strategies will be developed to ensure that every Ethiopian is reached with essential, quality services.

The possibility of establishing a centre or institute for health equity will also be explored to continuously generate evidence that narrows the gap in service utilization.

4.7.2. Information Revolution

What do we mean by Information Revolution?

The term information revolution refers to the phenomenal advancement on the methods and practice of collecting, analysing, presenting and disseminating information that can influence decisions in the process of transforming economic and social sectors. It entails a radical shift from traditional way of data utilization to a systematic information management approach powered by corresponding level of technology. Information revolution is not only about changing the techniques of data and information management; it is also about bringing fundamental cultural and attitudinal change regarding perceived value and practical use of information.

Why is Information Revolution a transformation agenda?

Appropriate and timely use of health and health-related information is an essential element in the process of transforming the health sector. Decisions at different levels of the health sector can only be effective if they are backed with accurate and reliable information.

Effective information use is critical across a range of activities in the health system. It is difficult to promote and maintain quality of primary, secondary and tertiary health care without the availability and effective utilization of micro level medical information. The decisions and organizational behaviors of service rendering facilities is also influenced by the amount of data they can gather and the capacity to translate it to meaningful information, which in turn is used for decision-making. From an equivalently imperative viewpoint, public access for essential information on health and health system is also important in terms of improving quality of care.

The need for multi-dimensional accurate and timely information is eminent in light of addressing issues related to equity in the health sector. Existing inequalities in health are accurately identified only with the presence of multi-dimensional and comprehensive information about the problem and contributing factors. Selection and application of effective interventions to solve the equity problem also require the use of analytic information.

The importance of information is also amplified when it comes to health emergency risk management. Local, national and global information is vital in terms of protecting the nation from health and health-related hazards. The same holds true for strengthening regulatory and purchasing functions in the health sector.

In light of the above mentioned importance of information use in Ethiopia, the prevailing practice in terms of effectively utilizing information is not satisfactory. Despite the intensive effort to improve the efficiency of information systems in the past few years, the utilisation of information at the local level is still a challenge. Quality of information is also an issue in the health sector. This justifies the need for a different approach in terms of information management and utilization that can bring about a radical change in all dimensions.

In general, all functions of the health system rely on the availability of timely, accurate and dependable information for decision-making. Hence, revolutionizing the existing practice of collecting, analysing, disseminating and utilising information in the health sector can considerably contribute towards holistic transformation.

What drives information revolution in the health sector?

The principal driving forces towards information revolution in the health sector can be explained using two major factors. The first one is the growing magnitude and type of information needed in the health sector. A numbers of reasons are behind the demand boom. One is the health sector's need to respond to the dynamic internal and external environment which requires increased amount and type of information. For instance, addressing equity and quality; operating within economically efficient environment; creating informed citizens and effectively engaging civil societies and the private sector demand a different levels of information management. The other reason is related to the political drive where the sector is expected to operate within an accountable and transparent environment. Result oriented accountable and transparent systems require the use of a wide range and types of information.

The second driving force is attributed to the opportunities created by the advancement of the ICT industry. The fact that ICT revolutionized the way information is managed demands the health sector to shift custom based technology to up-to-date modern technology. This is further expedited by the level of technological innovation within the sector. This factor can be explained as a stimulant of the technological environment and the response of the health sector to harness the benefits.

What information revolution needs?

The main objective of information revolution is to enhance the use of timely, accurate and reliable information for decision-making at the local level across the sector. To bring about a radical shift in terms of information management in the health sector by:

- Advancing the data collection, aggregation, reporting and analysis practice: This includes revolutionizing the data management from patient level data to national level reports. The routine systems that are built to collect aggregate and report data should be supported with appropriate technology to efficiently operate across the line.
- Promoting the culture of information use: Data is not collected for reporting purposes solely. It needs to be used at the point of collection as an input for decision-making. This can be enhanced by building the capacity at all levels on data analysis and information use. This needs wider capacity building exercise at facility, district, sub-national and national levels.
- Harnessing ICT: Information revolution needs to be complemented with appropriate selection and application of information communication technologies (ICT). The feasibility, scalability, sustainability and interoperability of such technologies should be carefully assessed before application.
- Data visibility and access: Revolutionizing the information system requires that data and information on health and health-related issues should be accessible for wider public use. Data will be accessible for researchers and interested individuals in a central data repository. Data visibility and presentation should also experience dramatic improvement
- Addressing the human element: The data revolution can be achieved if human resources, with all the required skills and competency, is available. It is important to introduce a different approach in terms of optimizing existing HIT professions and also advocate for better value for information by health professionals.
- Strengthening verification and feedback systems: Data quality is an essential element for information revolution. Verification and feedback systems improve the quality of

data and improve the effectiveness of local and hierarchical utilization of information.

- Multi-sectoral approach: various information systems managed by other sectors significantly contribute for information revolution in the health sector. These include Civil Registration and Vital Statistics, Central Statistics Authority database, Agriculture and weather information systems, Geographic Information system, financial information system and education information system. Harmonization and appropriate integration with these information sources is crucial.

4.7.3. Woreda transformation

'Woreda" is an administrative division in Ethiopia with an average population of 100,000 and is managed by democratically elected council that forms a local government. Woredas are composed of a number of Kebeles, which are the lowest administrative units. As per the national standard for health facilities, on average, a woreda is expected to have 20 health posts, 4 health centers and a primary hospital. The woreda health office is organized to provide programmatic and administrative support for the primary health care facilities. It plays a stewardship role ranging from multi-sectoral coordination and linkages across local government to regulation of public and private health services (mainly primary care), generating strategic information and assessing performance for accountability. It has also a financial responsibility to provide oversight for the revenues generated by health facilities, the budget allocated by the council for the health sector, resource generated through community-based health insurance schemes and purchasing services. In a nutshell, the woreda health office is responsible for the prevention of disease, promotion of health and provision and regulation of essential health services in the woreda.

Why Woreda transformation?

The HSTP has set very ambitious goals and aspires to transform the health system to deliver equitable and quality health care, which is a formidable task. This will only be possible if the woreda health offices are transformed into high-performing entities that translate the national aspirations and the desire of the public into a reality. Woreda transformation initiative will build on the existing system of governance by increasing the accountability of service providers to beneficiaries and by encouraging people to engage as active partners in service delivery. The progress the country has made in the health sector shows a high degree of variation amongst different woredas. So, the noble mission of achieving and sustaining high coverage, equity and quality of essential health services requires narrowing the gap and this will be accomplished through the woreda transformation agenda.

The expected outcome of woreda transformation:

- A transformed woreda is expected to have an accountable and transparent governance system that nurture meaningful community participation and strives to meet the needs of the people, make data-informed decisions, apply evidence-based frameworks to systematically identify bottlenecks and scale-up best practices to address them, and achieve universal health coverage.

How do we implement the Woreda transformation agenda?

The woreda transformation agenda has three simple and interrelated goals. These goals are: developing high-performing primary health care units (PHCU), graduation of model Kebeles and achievement of universal health coverage with financial risk protection. These goals will be achieved by implementing six clear strategies.

1. Establish a culture of quality management, focus and data-driven achievement, by choosing and nurturing great PHCU directors and health professionals and empowering them to get results
2. Promote equal care for equal need by expanding high performing PHCUs and establishing mechanisms for turning around low-performing health centers and health posts
3. Ensure equity, accountability and transparency through setting performance contracts for every PHCU, engagement of the public and civil societies (e.g. implementation of social accountability tools such as citizen scorecards)
4. Make the health system responsive to community needs by strengthening the health development army, creating health/health system literacy, and involvement of community members in the governing board of the PHCUs
5. Mobilize the community and line offices at the woreda level to create model kebeles, establish a system of verification and recognition schemes for the model Kebeles
6. Universal health coverage through scale-up of community based health insurance schemes

The woreda transformation agenda is closely related to the other transformation agendas of HSTP. A detailed manual has to be developed to guide its implementation. The implementation will have a phased approach. It is anticipated that in the first two years, the woreda transformation agenda will be rolled out in up to 10 zones involving an average of 100 woredas. Woredas in Zones with higher, average and low performance will be included in the first (learning) phase and will be progressively scaled up to the rest of woredas in the following 3 years.

4.7.4. An agenda for developing Caring, Respectful and Compassionate health professionals

What is CRC?

Caring, Respectful and Compassionate health professionals have the following four essential characteristics:

1. Consider patients as human beings with complex psychological, social and economic needs and provide person-centered care with empathy
2. Effective communication with health care teams, interactions with patients and other health professionals over time and across settings;
3. Respect for and facilitation of patients' and families' participation in decisions and care; and
4. Take pride in the health profession they are in and get satisfaction by serving the people and the country.

Medical care without compassion cannot be truly patient-centered. Compassion, which lies at the intersection of empathy (in this case, understanding patients' concerns) and sympathy (here, feeling patients' emotions), combines a response to the distress of others and a desire to alleviate that distress. Compassionate care addresses the patient's innate need for connection and relationships and is based on attentive listening and a desire to understand the patient's context and perspective. For most clinicians, compassionate

care matters because it is fundamental to the practice of medicine, ethically sound and humane. However, strong evidence also supports the impact of compassionate care on health outcomes, costs and other essential aspects of care.

The investment that will be made in HSTP to develop caring, respectful and compassionate health professionals aims at reinventing patients' experience in health facilities across the country. Having CRC health professionals is a critical requirement to ensure equity and achieve high quality health services. In a nutshell, CRC means serving patients, being ethical, living the professional oath and being a model for young professionals and students. ***It's a movement that requires champions who identify with their profession and take pride by helping people. It requires in some ways a cultural change and a change in attitude, manners and approach to health care delivery.***

Why is CRC a transformation agenda?

Beyond much controversy, health care providers agree in principle that compassion should be the foundation of health care. It is considered to be crucial and the foundation of a health care system that provides caring, safe, and high quality care and is described as holistic, non-judgmental, empathetic, respectful, and empowering. In the Ethiopian health system, there are many health professionals who have dedicated their entire career to public service and are respected by the public they serve. However, a significant proportion of health professionals see patients as just 'cases' and do not show compassion. Lack of respect to patients and their families is also a common complaint. Lack of role models in many health facilities and measuring the worth of a profession by how much it pays is leading the health system into a trap of low productivity and higher cost with lower patient satisfaction rates. In many of our hospitals, senior physicians cancel their outpatient clinics without informing their patients; elective surgeries get cancelled; admitted patients are by default getting the care they need from relatives as nurses, for various reasons, have limited their role to providing injections and securing IV lines. Proper counseling during dispensing of drugs is also becoming a rarity. The quality of lab tests and the quality assurance process that lab professionals have to take before issuing results is not practiced as expected. While there are a number of health system related challenges beyond the control of the frontline health providers that have to be addressed, lack of compassion, respect and care is the common source of grievances in health facilities.

Being a health professional is a very stressful job as professionals may face life and death situations in any minute. But at the same time, it is also a rewarding job as so much satisfaction can be obtained by saving lives and touching the lives of many in one's professional career. One can make a safe assumption that health professionals have chosen their profession because they want to help people, stop suffering of the poor and save lives. This transformation agenda builds on this fundamental principle of professional identification and creates a movement and champions that serve as role models to transform health care. It has to be noted further that it is necessary to create caring and supportive health care environments for not only patients and families, but for health care providers as well. To sustain compassion and prevent burnout, providers also need the opportunity to reflect, to share challenges and successes with each other, and to provide and receive support from each other.

Compassionate, patient-centered care is a top priority in our efforts to improve quality and equity in service delivery and that is why it is one of the transformation agendas of the HSTP.

How do we implement CRC agenda?

People who use health care services have the right to be treated with respect, dignity and compassion by staff that have the skills and time to care for them. Everyone deserves to be treated with respect. The development of caring, respectful and compassionate health workers requires a multi-pronged approach from reforming the recruitment of students for health science programs, to improving the curriculum of the various disciplines, and effective management of the health professionals that are already practicing. The CRC agenda requires ownership and engagement of the leadership at different levels of the system. It calls for inspirational leadership that aims to create enabling environment for health professionals to exercise their profession. It is also important to identify and engage model professionals as part of this movement. National, regional and facility level ambassadors (who should be health professionals with impeccable standards and reputation) for CRC will be designated and be supported to promote CRC. An advocacy campaign through mass media will also be launched to project positive images of health professionals. Patients and the general public will also be engaged in this movement. An annual health professional recognition event will also be organized to appreciate and recognize the best performing health professionals. CRC has to be a culture, self-driven inner motive and a legacy that the current generation of practitioners leaves to their successors.

In addition to the above, putting in place a favorable legislative framework to reinforce CRC which would include regulation on patients' rights and responsibilities (PRR) is crucial.

On the measurement side, it is important that we know to what extent do health care providers treat people with respect, dignity and compassion, so that changes can be made where necessary. A comprehensive project will be designed to implement the CRC agenda.

Chapter 5

HSTP Costing and Financing

Chapter 5: HSTP Costing and Financing

5.1 Costing

The OneHealth Tool (OHT) was used to compute the resource requirements for implementing this health sector transformation plan. OHT is a policy projection-modeling tool that allows users to create short and medium term plans for scaling up essential health services. It is a bottom-up tool that allows for modeling based on population demographics, disease and health profiles, clinical practices, service provision and coverage. It helps to identify the resource requirements for building and maintaining the infrastructure, training, deploying and retaining the health workforce, availing medicines and supplies and other aspects of the health system management including equipment, logistics, health information, health financing and governance.

OneHealth is a single tool used for medium term strategic health planning, costing and budgeting with a focus on integrating planning and strengthening health systems. It is a unified tool for joint planning, costing, budgeting, impact analysis, and financial space analysis. The model covered the national health sector, with a focus on public sector health interventions and incorporated activities from the private sector. It has also been used for costing sub-national strategic plans.

The OneHealth framework is built on different modules organized in three groups. 1) the health systems which included six health system building blocks: health workforce, infrastructure, logistics and supply chain, health information system, health systems financing, leadership and governance; 2) the health services delivery which included the disease and programme-specific costs; and 3) The impact module to show the expected targets. This helps to link programmes to health system strengthening platform; and making costing as part of the planning process and considers the country fiscal space for budgeting. It also enables integrated planning bringing partners together to agree on directions for strategic plan scenarios. Specifically, the tool facilitated involvement with a transparent consensual process to agree on directions for strategic plan scenarios with different programs and directorates. The tool requires that planning is driven by explicit analysis of the current health system, and overall context and what can realistically be achieved in the medium term. The tool recognizes synergies in costs and impact across programmes and diseases, as disease programmed-specific plans are integrated into the overall system planning framework. The assessment of costing and financial feasibility/sustainability is integrated into the planning process and is not an afterthought. Investments are linked to results in terms of system outputs and predicted health outcomes.

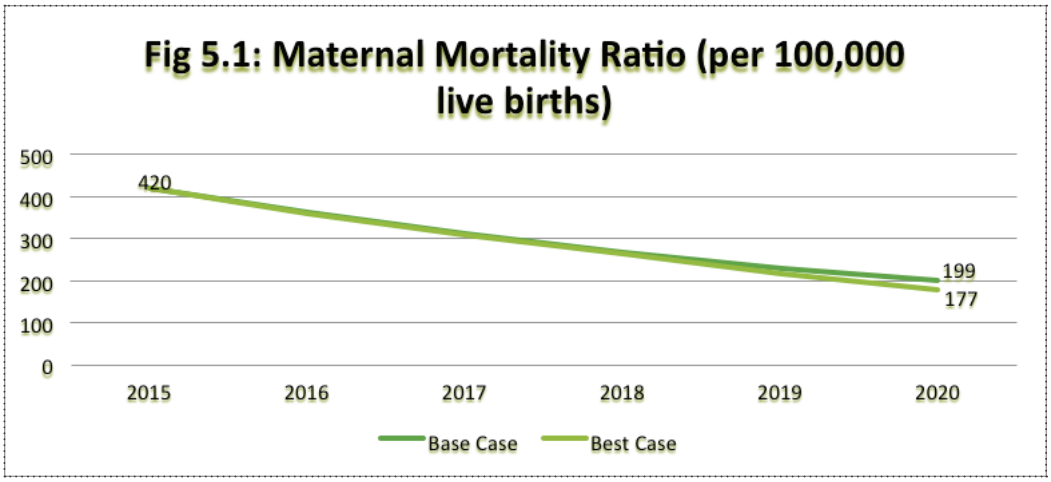
The cost estimate is based on:

1. The best accessed information on disease profiles
2. Used official figures for base year population demographics
3. Assumed that all available facilities are functioning
4. Assumed that the minimum required staffs are in place
5. National protocols and expert opinions are used for clinical practices
6. Expansion targets are set to meet the standards as based on population figures and other set criteria

5.1.1. Assumptions behind the two cost scenarios:

Service coverage targets are set in line with the national Growth and Transformation Plan and the envisioning exercise of achieving impacts that are comparable to middle-income countries by 2025/35.

The cost estimation of HSTP is prepared under two scenarios: the base and best-case scenarios. The base case scenario is to achieve the targets set in HSTP for the coming five years. The best-case scenario has very ambitious targets. The health system capacity especially the human resources and infrastructure in the high case scenario has higher investment on production of highly qualified professionals and on the health infrastructures.



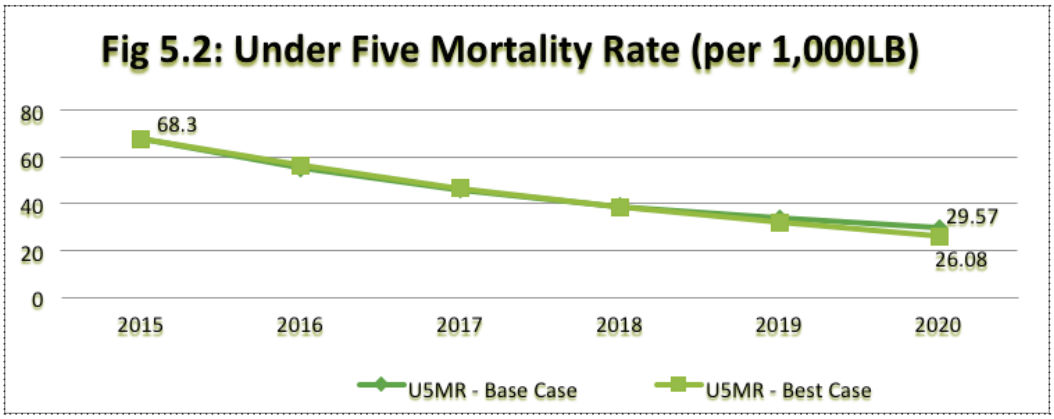


Table 5.1 Basic assumptions of costing for base ad high case scenarios

		Base Case: targets for 2020	High case: targets for 2020
Targets for impact and outcome indicators	Life expectancy	69 years	69.5 years
	MMR	Reduce from 420/100,000 LB to 199 per 100,000	Reduce from 420/100,000 LB to 177/100,000
	Neonatal Mortality	Reduce from 27 to 9.73, per 1,000 live births	Reduce from 27 to 7.87 per 1,000 live births
	Infant mortality	Reduce from 46.4 to 19.33 per 1,000 live births	Reduce from 46.4 to 16.7 per 1,000 live births
	Under five mortality	Reduce from 68 to 29.6 per 1,000 live births	Reduce from 68 to 26 per 1,000 live births
	TFR	3	2.1
	CPR	55%	65%
	Intervention/ service coverage	Targets set to help achieve the health status of the population of middle income country 2025/35	Base case+ with 100% of the most interventions of maternal, newborn, child health services; higher coverage of non-communicable disease interventions, the clinical services, including the diagnostic services
Inputs	Supply	Adjusted with the services planned for base case	Adjusted with the services planned for high case
	Infrastructure	Infrastructure to population ratio	Infrastructure to population ratio
		· HP is 1:5,000 pop (rural)	· HP is 1:3,000 pop (rural)
		· HC is 1:20,000 pop (rural) and 1: 40,000 pop (urban)	· HC is 1:15,000 pop (rural) and 1: 40,000 pop (urban)
		· Primary Hospital is 1:100,000 pop (rural)	· Primary Hospital is 1:60,000 pop (rural)
		· Gen Hospital is 1:1,500,000 pop (total)	· Gen Hospital is 1:1,000,000 pop (total)
		· Specialized Hospital is 1:5,000,000 pop (total)	· Specialized Hospital is 1:3,500,000 pop (total)
	HR	With the minimum possible HR production and using task shift as a strategy to perform the planned activities	With the highest possible HR production
		Based on the available health infrastructure for base case scenario	Based on the available health infrastructure for high case scenario

5.1.2 HSTP Cost Estimates: Base and High Case scenarios:

Using the above assumptions, the total cost estimation for the base and high case scenarios is 15.6 Billion USD and 22.0 Billion USD, respectively for the next five years. The cost difference is observed under the infrastructure (63%), human resource (20%) and medicine and supply (17%) (See Table 5.2).

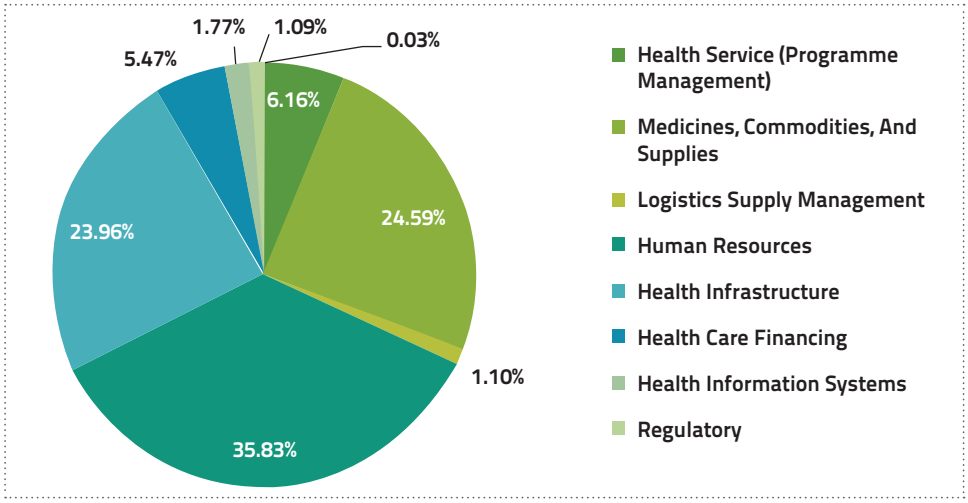
In the base case scenario, 36% of the total cost (5.5 Billion USD) is for human resource development and management; 25% (3.9 Billion USD) is for medicines, commodities and supplies; and 24% (3.7 Billion USD) is for health infrastructure which includes construction,

rehabilitation and maintenance of health facilities, equipment and furniture, ICT materials, vehicle (capital and running cost); 6% (967 Million USD) is for programme cost which includes short term trainings, supervision, advocacy, and other programme specific costs, and 5% (859 Million USD) for health care financing. (Table 5.2 and Fig 5.3).

Table 5.2: HSTP Summary Cost - Base Case Scenario (USD in '000)

Cost Area	2015/16	2016/17	2017/18	2018/19	2019/20	Total USD '000	
Health Service (Programme Management)	220,832	214,782	212,715	170,561	147,957	966,846	6.2%
Medicines, commodities, and supplies	638,308	828,818	730,742	788,429	918,461	3,904,758	25.0%
Logistics Supply Management	33,265	33,419	36,211	33,318	35,714	171,928	1.1%
Human Resources	707,290	899,218	1,098,823	1,306,265	1,521,865	5,533,460	35.4%
Health Infrastructure	919,590	802,681	801,902	693,381	520,963	3,738,516	23.9%
Health Care Financing	152,281	170,795	168,469	180,762	184,327	856,635	5.5%
Health Information Systems	55,578	55,486	55,483	55,483	55,483	277,512	1.8%
Regulatory	27,704	31,525	34,207	37,536	40,610	171,582	1.1%
Governance	1,155	1,191	1,227	1,259	341	5,173	0.0%
Grand Total	2,756,002	3,037,915	3,139,778	3,266,994	3,425,721	15,626,410	100.0%

Figure 5.3: percentage Share of the various components of HSS to base case costing

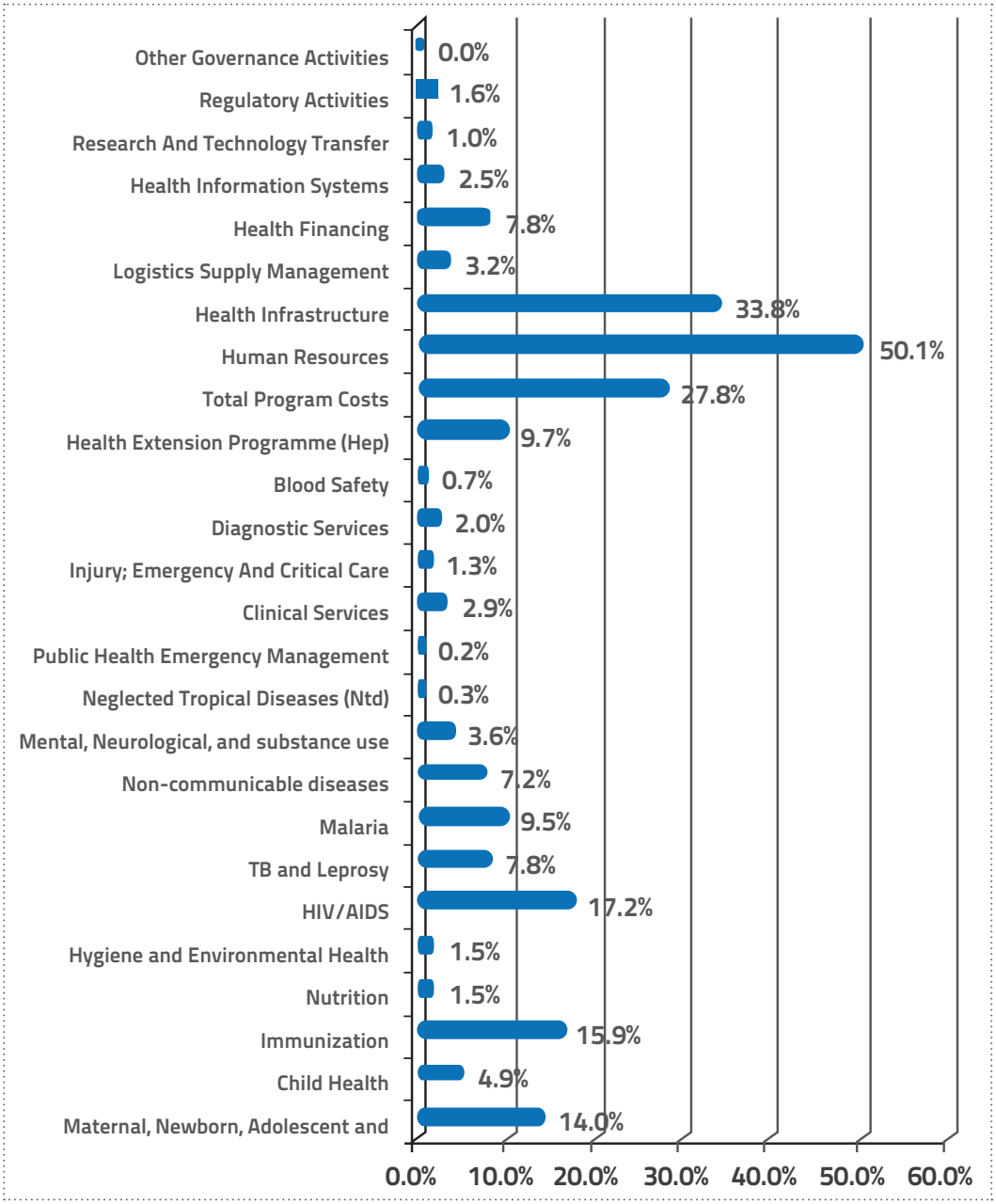


Cost breakdown of the base case scenario by health service and health systems showed that 70% of the total cost is for health systems strengthening and the rest 30% goes for health service delivery. Out of the total cost allocated for health services, which is 4.34 Billion USD, the highest proportion is allocated for child health services including immunization, HIV/AIDS prevention and control, and maternal health services which showed 20.8%, 17% and 14%, respectively (Table 5.3).

Table 5.3: HSTP Cost - Base Case Scenario by programme and health system building blocks (USD in '000)

Programme Area	2015/16	2016/17	2017/18	2018/19	2019/20	Total
Health Service (Programmes)						
Maternal, Newborn, Adolescent and Reproductive Health	102,981	116,645	122,113	128,965	136,696	607,401
Child Health	40,799	43,617	44,047	43,033	41,144	212,641
Immunization	108,191	133,686	154,796	146,732	146,039	689,444
Nutrition	12,706	12,707	12,710	12,715	12,710	63,548
Hygiene and Environmental Health	12,706	12,707	12,710	12,715	12,710	63,548
HIV/AIDS	132,119	139,952	149,077	161,031	164,449	746,628
TB and Leprosy	78,737	73,491	63,270	62,735	61,819	340,051
Malaria	28,911	159,968	25,265	32,661	164,842	411,646
Non-communicable diseases	22,423	38,917	65,875	85,301	99,480	311,996
Mental, neurological, and substance use disorders	14,959	22,325	31,915	44,288	44,165	157,652
Neglected Tropical Diseases (NTD)	3,585	3,077	3,040	1,152	1,153	12,007
Public Health Emergency Management (PHEM)	1,720	1,763	1,812	1,963	502	7,760
Clinical Services	21,724	28,088	28,098	22,364	23,411	123,685
Injury Prevention; Emergency and Critical Care	8,143	9,621	11,278	12,968	14,739	56,749
Diagnostic Services	19,011	18,598	18,205	18,223	12,231	86,268
Blood Safety	6,812	5,802	5,262	5,491	4,957	28,323
Health Extension Programme (HEP)	160,510	124,921	86,492	45,644	2,075	419,642
Total program costs	776,034	945,885	835,965	837,981	943,122	4,338,988
Health Systems						
Human Resources	707,290	899,218	1,098,823	1,306,265	1,521,865	5,533,460
Health Infrastructure	919,590	802,681	801,902	693,381	520,963	3,738,516
Logistics supply Management	63,562	72,714	70,694	70,460	78,965	356,395
Health Financing	152,281	170,795	168,469	180,762	184,327	856,635
Health Information Systems	55,578	55,486	55,483	55,483	55,483	277,512
Research and Technology Transfer	26,636	19,626	25,364	24,922	12,257	108,805
Regulatory activities	27,704	31,525	34,207	37,536	40,610	171,582
Other Governance activities	1,155	1,191	1,227	1,259	341	5,173
Total Health Systems	1,953,795	2,053,236	2,256,169	2,370,067	2,414,811	11,048,078
Grand Total	2,756,002	3,037,915	3,139,778	3,266,994	3,425,721	15,626,410

Figure 5.4: Percentage of Base Case Scenario by programme and health system building blocks (USD in '000)



When the estimated base case cost is explored through HSTP strategic objectives, the highest allocation goes to improving development and management of human resources, followed by improving access to quality of health services and improving health infrastructure which showed 33.7%, 26.5% and 22.2%, respectively. There are some strategic objectives with some budget allocation due to the nature of the objectives (Table 5.4).

Table 5.4: HSTP Cost - Base Case Scenario by HSTP strategic objectives (USD in '000)

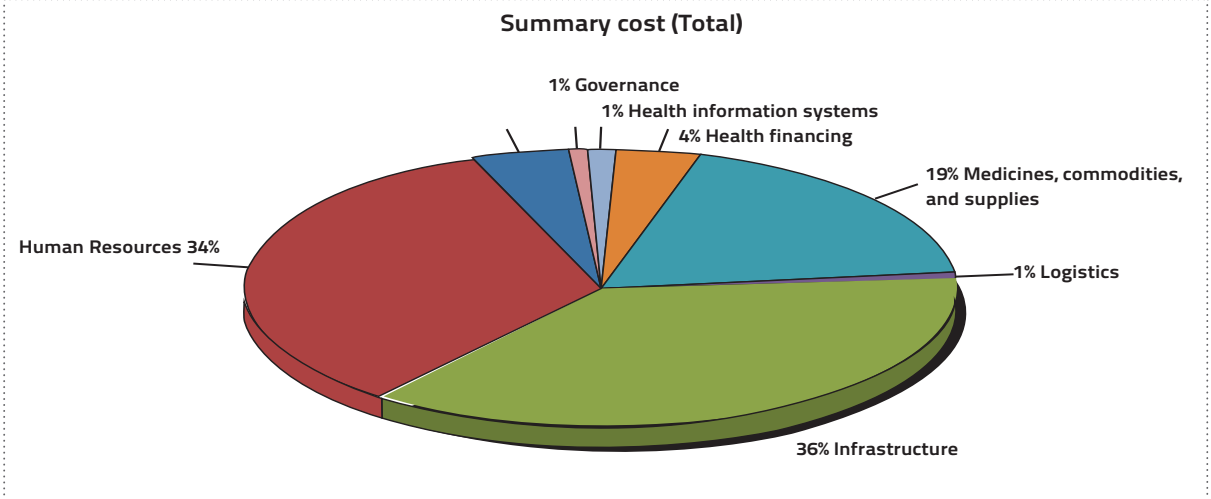
	2015/16	2016/17	2017/18	2018/19	2019/20	Total	
C1: Improve health status	103	98	92	87	82	462	0.0%
C2: Improve community ownership	155	147	138	130	123	693	0.0%
F1: Improve efficiency and effectiveness	103	98	92	87	82	462	0.0%
P1: Improve Access to Quality Health Services	637,976	855,994	793,304	847,318	1,006,332	4,140,922	26.5%
P1.1: Maternal, Adolescent and Reproductive Health	100,461	113,535	118,581	125,170	132,783	590,530	3.8%
P1.2: Newborn and Child Health	151,509	180,414	202,376	193,560	191,097	918,956	5.9%
P1.3: Comprehensive and Integrated Nutrition Service	38,879	51,501	60,354	71,661	80,497	302,892	1.9%
P1.4: Malaria Prevention and Control	28,911	159,968	25,265	32,661	164,842	411,646	2.6%
P1.5: TB Prevention and Control	78,737	73,491	63,270	62,735	61,819	340,051	2.2%
P1.6: HIV Prevention and Control	132,119	139,952	149,077	161,031	164,449	746,628	4.8%
P1.7: Non-Communicable Disease Prevention and Control	22,423	38,917	65,875	85,301	99,480	311,996	2.0%
P1.8: Mental Health	14,959	22,325	31,915	44,288	44,165	157,652	1.0%
P1.9: Clinical Services	38,734	44,684	44,301	38,586	33,641	199,945	1.3%
P1.10: Hygiene and Sanitation	12,706	12,707	12,710	12,715	12,710	63,548	0.4%
P1.11: Blood Safety	6,812	5,802	5,262	5,491	4,957	28,323	0.2%
P1.12: Injury, Emergency	8,143	9,621	11,278	12,968	14,739	56,749	0.4%
P1.13: NTD	3,585	3,077	3,040	1,152	1,153	12,007	0.1%
P2: Improve Health Emeregency Risk Management	1,720	1,763	1,812	1,963	502	7,760	0.0%
P3: Enhance Good Governance	1,200	1,300	1,378	1,374	1,474	6,726	0.0%
P4: Improve regulatory system	27,659	31,415	34,056	37,421	39,478	170,029	1.1%
P5: Improve logistics supply and management	55,064	66,077	66,025	67,864	78,556	333,585	2.1%
P6: Improve community participation, & engagement	168,492	131,069	90,701	47,806	2,075	440,143	2.8%
P7: Improve Resource Mobilization	129,153	146,641	156,589	167,454	178,684	778,521	5.0%
P8: Improve research and evidence for decision making	84,215	77,114	82,849	82,406	69,741	396,325	2.5%
CB1: Enhance use of technology & Innovation	80,485	45,112	48,278	49,311	50,562	273,749	1.8%
CB2: Improve Development & Management of HRH	707,290	899,218	1,098,823	1,306,265	1,521,865	5,533,460	35.4%
CB3: Improve health infrastructure	839,104	757,569	753,623	644,069	470,401	3,464,767	22.2%
CB4: Enhance Policy and Procedures	155	147	138	130	123	693	0.0%
Total	2,756,002	3,037,915	3,139,778	3,266,994	3,425,721	15,626,410	100.0%

In the high case scenario, 34% of the total cost (7.4 Billion USD) is for human resource development and management; 19% (4.1 billion USD) is for medicines, commodities and supplies; 36% (8.0 billion USD) is for health infrastructure. 967 Million USD is estimated for programme management costs, while 4% (856 Million USD) for health care financing. (Table 5.5 and Fig 5.5).

Table 5.5: HSTP Summary Cost - High Case Scenario (USD in '000)

Cost Area	2016	2017	2018	2019	2020	Total USD '000
Health Service (Programme Management)	220,832	214,782	212,715	170,561	147,957	966,846
Medicines, commodities, and supplies	659,934	864,589	766,031	828,567	976,605	4,095,726
Logistics Supply Management	33,265	33,419	36,211	33,318	35,714	171,928
Human Resources	823,596	1,136,705	1,462,350	1,801,034	2,153,068	7,376,753
Health Infrastructure	1,871,071	1,734,235	1,670,444	1,558,146	1,152,173	7,986,069
Health Care Financing	152,281	170,795	168,469	180,762	184,327	856,635
Health Information Systems	55,578	55,486	55,483	55,483	55,483	277,512
Regulatory	27,704	31,525	34,207	37,536	40,610	171,582
Governance	1,155	1,191	1,227	1,259	341	5,173
Grand Total	3,845,417	4,242,727	4,407,137	4,666,666	4,746,278	21,908,225

Figure 5.5: percentage share of the various components of HSS to high case costing



When the estimated high case cost is explored through HSTP strategic objectives, the highest allocation goes to improving development and management of human resources, followed by improving health infrastructure and improving access to quality of health services which showed 33.7%, 34.7% and 19.7%, respectively. (Table 5.6).

Table 5.6: HSTP Cost - High Case Scenario by programme and health system building blocks (USD in '000)

Strategic Objectives	2015/16	2016/17	2017/18	2018/19	2019/20	Total	
C1: Improve health status	103	98	92	87	82	462	0.0%
C2: Improve community ownership	155	147	138	130	123	693	0.0%
F1: Improve efficiency and effectiveness	103	98	92	87	82	462	0.0%
P1: Improve Access to Quality Health Services	658,569	890,048	826,874	885,475	1,061,598	4,322,564	19.7%
P1.1: Maternal, Adolescent and Reproductive Health	99,441	110,468	112,769	115,907	119,439	558,025	2.5%
P1.2: Newborn and Child Health	147,499	170,804	183,741	165,190	151,901	819,135	3.7%
P1.3: Comprehensive and Integrated Nutrition Service	38,543	50,055	56,890	65,172	69,853	280,513	1.3%
P1.4: Malaria Prevention and Control	28,880	159,889	25,122	32,424	164,481	410,796	1.9%
P1.5: TB Prevention and Control	78,736	73,490	63,267	62,728	61,804	340,026	1.6%
P1.6: HIV Prevention and Control	132,069	139,796	148,732	160,383	163,439	744,419	3.4%
P1.7: Non-Communicable Disease Prevention and Control	43,447	78,883	119,120	161,702	207,404	610,557	2.8%
P1.8: Mental Health	18,770	28,530	38,298	47,757	53,053	186,408	0.9%
P1.9: Clinical Services	39,948	46,967	46,737	42,035	36,924	212,612	1.0%
P1.10: Hygiene and Sanitation	12,706	12,707	12,710	12,715	12,710	63,548	0.3%
P1.11: Blood Safety	6,811	5,800	5,260	5,488	4,952	28,311	0.1%
P1.12: Injury, Emergency	8,135	9,591	11,205	12,824	14,488	56,242	0.3%
P1.13: NTD	3,583	3,069	3,024	1,149	1,149	11,973	0.1%
P2: Improve Health Emeregency Risk Management	1,720	1,763	1,812	1,963	502	7,760	0.0%
P3: Enhance Good Governance	1,200	1,300	1,378	1,374	1,474	6,726	0.0%
P4: Improve regulatory system	27,659	31,415	34,056	37,421	39,478	170,029	0.8%
P5: Improve logistics supply and management	56,097	67,793	67,744	69,844	81,433	342,911	1.6%
P6: Improve community participation, & engagement	168,492	131,069	90,701	47,806	2,075	440,143	2.0%
P7: Improve Resource Mobilization	129,153	146,641	156,589	167,454	178,684	778,521	3.6%
P8: Improve research and evidence for decision making	84,215	77,114	82,849	82,406	69,741	396,325	1.8%
CB1: Enhance use of technology & Innovation	80,485	66,836	73,548	77,263	82,614	380,747	1.7%
CB2: Improve Development & Management of HRH	823,596	1,136,705	1,462,350	1,801,034	2,153,068	7,376,753	33.7%
CB3: Improve health infrastructure	1,790,586	1,667,399	1,596,896	1,480,883	1,069,558	7,605,322	34.7%
CB4: Enhance Policy and Procedures	155	147	138	130	123	693	0.0%
Total	**3,845,417**	**4,242,727**	**4,407,137**	**4,666,666**	**4,746,278**	**21,908,225**	**100.0%**

The HSTP costing is also disaggregated into recurrent and capital budget. Both scenarios show similar proportions. In the base case scenario, 40% of the total HSTP costing is projected to go to recurrent while the remaining 60% will go to capital budget (table 5.7). In the high case scenario, the recurrent cost share is to be 39% and the capital budget is 61% (table 5.8).

Table 5.7: HSTP Cost: recurrent and capital cost- base case scenario (USD in '000)

YEAR	HSTP Estimated Cost in 000 USD (2016-2020)					
	Recurrent		Capital		Total	
	USD '000	%	USD '000	%	USD '000	%
2015/16	846,794	31%	1,909,208	69%	2,756,002	100%
2016/17	1,048,164	35%	1,989,751	65%	3,037,915	100%
2017/18	1,256,648	40%	1,883,130	60%	3,139,778	100%
2018/19	1,471,564	45%	1,795,429	55%	3,266,994	100%
2019/20	1,692,807	49%	1,732,914	51%	3,425,721	100%
TOTAL	6,315,977	40%	9,310,433	60%	15,626,410	100%

Table 5.8: HSTP Cost: recurrent and capital cost- high case scenario (USD in '000)

HSTP Summary Cost - High Case Scenario (USD in '000)						
YEAR	HSTP Estimated Cost (2016-2020)					
	Recurrent		Capital		Total	
	USD '000	%	USD '000	%	USD '000	%
2015/16	1,002,220	26%	2,860,485	74%	3,862,705	100%
2016/17	1,346,169	32%	2,914,432	68%	4,260,601	100%
2017/18	1,704,457	39%	2,707,957	61%	4,412,413	100%
2018/19	2,068,356	44%	2,604,497	56%	4,672,853	100%
2019/20	2,438,351	51%	2,314,137	49%	4,752,488	100%
TOTAL	8,559,553	39%	13,401,507	61%	21,961,060	100%

The total cost for the HSTP is also estimated by service delivery levels in the two scenarios. Out of the total estimated cost, 55% (8.6 billion USD) in base case and 62% (13.5 billion USD) in high case is allocated for the primary level of care including household/community level interventions; 20% (3.1 billion USD) in the base case and 20% (4.4 billion USD) in the high case is allocated for the General and Specialized Hospitals; 17% (2.6 billion USD) in the base case and 12% (2.6 billion USD) in the high case is allocated for health systems strengthening to support all levels of care and the remaining 8% (1.3 billion USD) in the base case and 6% (1.4 billion USD) in the high case is for the Federal and Regional levels management activities. The cost estimation for Federal and Regional levels includes activities to support the programmes at lower levels including short-term trainings and supportive supervision (Table 5.9 and 5.10). Out of the total cost estimated for primary level of care, about 59% (5.1 Billion USD) goes to primary hospitals and health centers, 32% (2.8 Billion USD) for Health Posts and the remaining 9% (0.8 Billion USD) is allocated for household /community based interventions in the base case scenario. This shows that priority to PHC remains the guiding principle of HSTP.

Table 5.9: HSTP Summary Cost by service delivery levels of base case

	Level	2015/16	2016/17	2017/18	2018/19	2019/20	Total
1	Primary Health Care Unit (PHCU)						
1.1	House Hold / Community	172,207	206,887	105,876	89,252	174,564	748,785 (5%)
1.2	Health Post	438,653	571,028	553,138	607,349	612,632	2,782,801 (18%)
1.3	Health Center / Primary Hospital	978,653	996,086	1,045,607	1,050,045	1,041,693	5,112,084 (33%)
	Sub-total						
2	Primary level health care	1,589,514	1,774,002	1,704,621	1,746,645	1,828,889	8,643,670 (55%)
3	Hospital (General & Specialized)	395,320	489,347	653,280	750,137	836,063	3,124,146 (20%)
4	Health Systems Strengthening	467,848	512,552	518,615	548,042	559,985	2,607,042 (17%)
5	National programme	303,321	262,015	263,263	222,169	200,784	1,251,552 (8%)
	Grand Total	2,756,002	3,037,915	3,139,778	3,266,994	3,425,721	15,626,410 (100%)

Table 5.10: HSTP Summary Cost by service delivery levels of high case

	Level	2015/16	2016/17	2017/18	2018/19	2019/20	Total
1	Primary Health Care Unit (PHCU)						
1.1	House Hold / Community	172,158	206,593	105,248	87,824	172,610	744,433 (3%)
1.2	Health Post	631,409	802,621	816,791	909,640	946,905	4,107,365 (19%)
1.3	Health Center / Primary Hospital	1,707,602	1,711,302	1,767,326	1,810,702	1,642,474	8,639,406 (39%)
	PHCU total	2,511,169	2,720,515	2,689,365	2,808,166	2,761,989	13,491,204 (62%)
2	Hospital (General & Specialized)	562,046	724,204	908,906	1,058,357	1,188,590	4,442,103 (20%)
3	Health Systems Strengthening	468,881	514,268	520,334	550,023	562,863	2,616,368 (12%)
4	National programme	303,321	283,740	288,532	250,121	232,836	1,358,550(6%)
	Grand Total	3,845,417	4,242,727	4,407,137	4,666,666	4,746,278	21,908,225 (100%)

With above resource projections, the total per capita public health spending is estimated to increase from 30 to 34.3 USD in the base case and from 41.8 to 47.6 USD in the high case scenarios. (Figure 5.6) The baseline spending for the 2014/15 is expected to be generated in NHA6.

Figure 5.6: Estimated Total Public Health Expenditure per capita (in USD)

5.2 Fiscal Space Analysis and Fnancing Projections

The sector has projected the financial availability for the HSTP for all sources of financing. These sources are government budget allocation, community contribution (in kind and cash), health insurance (both community and social health insurances), and external aid from development partners. The assumptions used to project each of the financing sources and projected availability of financing is described in the following sub-sections.

5.2.1 Fiscal Space Analysis and Projected Government Treasury Funding.

The government allocation is projected under two scenarios. The first scenario assumed that the current level of allocation to health (6% from GGE) from the GTP II overall government financing framework will be maintained in the next five years. In addition, government will allocate separately to subsidize social health insurance and CBHI as per the target set in the HSTP. The total projected financing under this scenario is estimated to be 6.3 billion USD. The second scenario is estimated based on the GTP II overall government financing framework and the projected health sector budget allocation calculated based on the targeted share of % of health budget from general government spending to increase from 6% to 10% by 2020 (table 5.11). In this scenario, the total projected financing also covers contribution and subsidy to CBHI and SHI. The estimated total funding for HSTP in this scenario is estimated at 8.1 billion USD.

Table 5.11: projected government resource allocation

	Scenario 1: Using Historical allocations and commitment to CBHI and SHI				Scenario 2: Using GTP II framework and health allocation targets
	Budget Allocation	SHI contribution and subsidy	CBHI subsidy	Total GGHE	
2015/6	677,107,428.57	76,357,671.43	19,717,433.41	773,182,533.41	789,958,667
2016/7	781,644,285.71	96,432,095.24	43,844,675.35	921,921,056.30	977,055,357
2017/8	1,042,153,142.86	95,402,590.48	54,902,210.58	1,192,457,943.91	1,476,383,619
2018/9	1,315,173,714.29	113,632,452.38	67,262,543.03	1,496,068,709.70	1,972,760,571
2019/20	1,680,755,428.57	119,950,207.14	80,162,407.51	1,880,868,043.23	2,801,259,048
Total	5,496,834,000.00	501,775,016.67	265,889,269.88	6,264,498,286.55	8,017,417,262

5.2.2 Community and Contributory schemes funding

Communities are investing their time and energy to produce their own health. Their contribution is estimated for two major areas of their involvement. The first is their active involvement in the Health Development Army. The leader of the one-five networks will spend 45 minutes per session and two sessions per week. The second aspect of community contribution is working on environmental management for malaria control initiative. 40% of the adult population is assumed to spend 2 days per week per month, 2 days per month and 1 day per month in high, moderate and low malaria risk areas respectively per year. Their contribution is estimated in terms of resources using a minimum wage, which is considered 10 birr per hour. The total estimate community contribution during the HSTP period is 1.0 billion USD (table 5.12). This community contribution does not include other contributions such as establishing waiting rooms for pregnant mothers, labor cost for constructing health posts, and other which is now planned to be one of the strategic initiatives as domestic financing.

Table 5.12: Estimated Community Contribution in USD

	2015/16	2016/17	2017/18	2018/19	2019/20	Total
HAD monetary contribution	85,047,523	92,584,434	100,789,267	109,721,212	119,444,706	507,587,141
Community involvement on malaria eradication	83,657,624	91,071,363	99,142,107	107,928,081	117,492,667	499,291,843
Total (USD)	**168,705,147**	**183,655,797**	**199,931,374**	**217,649,293**	**236,937,373**	**1,006,878,985**

5.2.3. SHI and CBHI

The social health insurance scheme is assumed to start its operation in EFY 2008 (2015/16). It is also assumed that SHI will cover the entire formal sector in the country. The total membership contribution of the SHI is projected based on the 3% salary contribution. The scaling up of CBHI is taking place and it is assumed that by end of 2020, 80% of the informal sector households of 80% woredas will be enrolled into the CBHI Scheme, of which, 10 percent of them will be considered the very poor and government will subsidize them. The CBHI contribution shown below is only for paying membership based on the current premium rates. It is also assumed that member contribution of community and social health insurances with a utilization rate of a maximum of 90% and 80% utilization, respectively. The total projected contributions of SHI and CBHI in the next 5 years is estimated to be 409 and 375 million USD respectively, as shown in table 5.13.

Table 5.13: Projected SHI and CBHI contribution in USD

	SHI contribution excluding Government	CBHI member contribution (Estimated utilization)
2015/6	81,269,190	27,851,136.06
2016/7	59,430,714	61,931,185.11
2017/8	80,407,048	77,550,100.20
2018/9	85,394,000	95,009,233.64
2019/20	103,326,976	113,230,463.21
Total (USD)	409,827,929	375,572,118

5.2.4 External Financing

Development partners provided commitment for financing the next plan as part of the HSTP as part of its development process. Most of the DPs provided three years resource projections of external support as per their commitment and this is considered as scenario one. Under this scenario a total of 3.3 billion USD is projected to be available for HSTP period (Table 5.14). There are some DPs that do not provide commitment beyond the three years. Scenario 2 assumes that development partners that have not shown commitment beyond three years will continue to support the sector for the remaining two years as per their average commitment for the three years, assuming their continued commitment to ensure susatainability of the achievements. The total projected external financing under this scenario is projected to be 4.3 billion USD. Table 5.15 presents the projected external funding available for HSTP as per the two scenarios.

Table 5.14: HSTP Strategic Resource Mapping summary of commitment by Development Partner

DP's Name	2015/16	2016/17	2017/18	2018/19	2019/20	Total
USAID	259,200,000	236,400,000	231,400,000			727,000,000
PEPFAR	200,000,000	170,000,000	144,500,000	122,825,000	104,401,250	741,726,250
DFID	89,602,858	75,354,562	45,662,414			210,619,834
EKN/the Netherlands Embassy	15,891,429	15,000,000	15,000,000	-	-	45,891,429
Irish Aid	8,051,530	8,051,530	8,051,530	8,051,530		32,206,119
Coraid	2,485,009	1,295,836	556,897	-	-	4,337,743
European union	26,434,563	64,181,970	53,899,200	53,899,200	53,899,200	252,314,133
Spanish aid	2,348,363	2,214,171	2,214,171	2,214,171	2,214,171	11,205,046
UNICEF	43,550,000	42,050,000	42,050,000	42,050,000	42,050,000	211,750,000
WHO	15,363,000	15,514,500	16,076,900			46,954,400
World Bank	31,575,230	30,222,135	24,843,685	7634835	1379115	95,655,000
Global fund TB	14,392,050	16,377,803	9,293,025			40,062,878
Global fund malaria	77,298,315	30,235,867	18,700,948			126,235,129
Global fund HIV	64,592,872	99,930,928	107,359,902			271,883,702
Global fund HSS	14,500,000	19,000,000	140,000			33,640,000
GAVI HSS	1,800,000	1,500,000	1,300,000			4,600,000
CIFF	4,830,142	11,666,331	3,061,603			19,558,076
GAVI Vaccine/ forecasted	75,000,000	75,000,000	75,000,000	75,000,000	75,000,000	375,000,000
Total USD	946,915,360	913,995,632	799,110,275	311,674,735	278,943,736	3,250,639,739

Table 5.15: DPs' commitment in two options (based on the resource mapping and projection)

	Option 1: based on government commitment	Option 2: projected based on average 3 years commitment
2015/6	946,915,360	946,915,360
2016/7	913,995,632	913,995,632
2017/8	799,110,275	799,110,275
2018/9	311,674,735	821,935,799
2019/20	278,943,736	797,256,329
Total	**3,250,639,739**	**4,279,213,396**

5.2.5. Total Funding projection

Overall, the health sectors total financing availability is considered under low, medium and high scenarios. The low scenario considered government allocation (as per the historical 6% allocation from the GTP II resource framework plus government contribution and subsidy to health insurance), community contribution, SHI and CBHI membership contributions and external assistance based on the commitments provided by DPs. The total resources available under this scenario is 12.3 Billion USD. The medium case considered GTP II resource framework with increased % of GHE from 6% to 10%, community contribution, SHI and CBHI membership contributions and external assistance based on the commitments provided by DPs. The total resources projected in medium case is estimated to be 13.0 billion USD. The high scenario takes medium case and replaced the external assistance adjusted with average commitments for years that DPs have not shown their commitments. The total resources available using this scenario is estimated to be 14.1 billion USD.

Table 5.16: Total Resource Projections

YEAR	Government allocation		Community contribution	SHI and CBHI Beneficiaries contributions	External Assistance		Total Resource available		
	Scenario 1	Scenario 2			Scenario 1	Scenario 2	Low case	Medium case	Higher case
2015/16	773,182,533	789,958,667	168,705,147	109,120,327	946,915,360	946,915,360	1,997,923,368	2,014,699,501	2,014,699,501
2016/17	921,921,056	977,055,357	183,655,797	121,361,899	913,995,632	913,995,632	2,140,934,385	2,196,068,686	2,196,068,686
2017/18	1,192,457,944	1,476,383,619	199,931,374	157,957,148	799,110,275	799,110,275	2,349,456,741	2,633,382,417	2,633,382,417
2018/19	1,496,068,710	1,972,760,571	217,649,293	180,403,234	311,674,735	821,935,799	2,716,057,035	2,682,487,833	3,192,748,897
2019/20	1,880,868,043	2,801,259,048	236,937,373	216,557,439	278,943,736	797,256,329	3,131,619,185	3,533,697,596	4,052,010,189
Total	6,264,498,287	8,017,417,262	1,006,878,985	785,400,047	3,250,639,739	4,279,213,396	12,335,990,714	13,060,336,032	14,088,909,689

5.3 Funding Gap

The overall funding gap of HSTP ranges from 10% in high resource case and base case costing scenario to 44% in high case costing and low resource projection model scenario. The targets set for HSTP are more related to the base costing scenario and the resource gap under this scenario is estimated to be 21% under low case, 16% under medium case and 10% under high case resource projections. In each of the cases, the overall funding gap declines from 2016 to 2020. Table 5.17 and 5.18 shows the funding gap under different modalities.

Table 5.17: HSTP funding gap under two cost and three resource projection scenarios

Base Case Scenario		HSTP Cost and Financing	
		High Case Scenario	
Total (USD) HSTP Cost Estimate		15,626,410,319.00	21,908,225,189.00
Resource gap in %	Low case	21%	44%
	Medium Case	16%	40%
	High Case	10%	36%

Table 5.18: HSTP funding gap under two cost and the low case resource projection scenario

	HSTP Cost Estimate		Total Resources Available – Low case	Resource gap in % based on Low Case Resource Projection	
Year	Base Case Scenario	High Case Scenario		HSTP Base Case Estimate	HSTP High Case Estimate
2015/16	2,756,002,130	3,845,416,821	1,997,923,368	28%	48%
2016/17	3,037,915,281	4,242,727,079	2,140,934,385	30%	50%
2017/18	3,139,778,269	4,407,137,353	2,349,456,741	25%	47%
2018/19	3,266,993,588	4,666,666,310	2,716,057,035	17%	42%
2019/20	3,425,721,051	4,746,277,626	3,131,619,185	9%	34%
Total(USD)	15,626,410,319	21,908,225,189	12,335,990,714	21%	44%

The sector is fully aware of the current funding gap in the projected costs and financing. There are three major strategies that will help manage the funding gap observed. These are:

- Innovative financing: one of the major health financing flagship initiatives is the introducing innovative financing. Within the first two years the feasibility of innovative financing will be explored and if found feasible, implementation is expected to happen after the midterms of the HSTP. The implementation of the innovative financing is expected to contribute to reducing the financing gap;
- Enhancing efficiency gains: mainly focusing on procurement, human resources productivity and supply management. The sector will continue to take advantage of bulk procurement

that enhance values for money in the next five years. The sector will explore and implement human resource productivity enhancing interventions to ensure that available human resources produce more services than they currently do. The distribution of and management of health commodities will be strengthened to ensure that they are distributed on time, and wastage rates are reduced

- The annual resource constrained evidence based planning process will align targets and resource requirements. If innovative financing and enhancing efficiency gains do not eliminate the funding gap, the sector will prioritize interventions and flagship programs during the annual evidence bases planning process.

Chapter 6

HSTP Implementation Arrangement

Chapter 6: HSTP Implementation Arrangement

6.1. Health Service Delivery Arrangement

The Ethiopian health service is restructured into a three tier system; primary, secondary and tertiary level of care. The primary level of care includes primary hospital, health center and health post.

The Primary Health Care Unit which is composed of a health center (HC) and five satellite health posts (HPs). These provide services to approximately 25,000 people altogether. A HC is staffed with an average of 20 staff. It provides both preventive and curative services. It serves as a referral center and practical training institution for HEWs. A HC has an inpatient capacity of 5 beds. A primary hospital provides inpatient and ambulatory services to an average population of 100,000. In addition to what a HC can provide, a primary hospital provides emergency surgical services, including cesarean sections and gives access to blood transfusion service. It also serves as a referral center for HCs under its catchment areas, a practical training center for nurses and other paramedical health professionals. A primary hospital has an inpatient capacity of 25-50 beds and is staffed by an average number of 53 persons.

A general hospital provides inpatient and ambulatory services to an average of 1,000,000 people. It is staffed by an average of 234 professionals. It serves as a referral center for primary hospitals. It serves as a training center for health officers, nurses and emergency surgeons categories of health workers.

A specialized hospital serves an average of five million people. It is staffed by an average of 440 professionals. It serves as a referral for general hospitals.

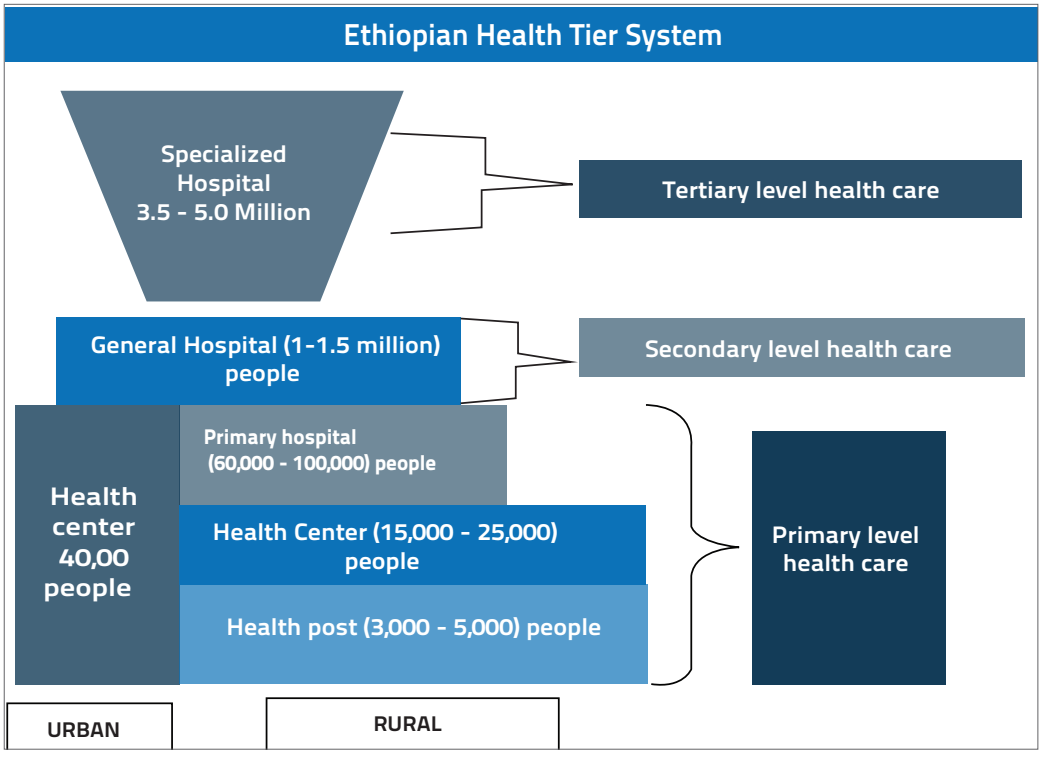


Figure 9: Ethiopian Health Tier System

6.2. HSTP Governance

Governance, in the context of the HSTP, means how the development and implementation of the plan is organized, managed and communicated – the responsibilities of the different organizations involved, the mechanisms for policy-making, planning, monitoring and evaluation and coordination between these core areas. This is not limited to government officials alone but all citizens, NGOs and development partners as all have a stake and relevant role to play in the governance of the HSTP. Governance is important to ensure that plans are actually owned and implemented – and it is particularly important that governance responsibilities are clear in a country with a Federal System.

The governance structure should encourage:

- Responsiveness (making services needs-based)
- Inclusiveness (taking different groups and needs into consideration)
- Accountability (making roles and responsibilities clear)
- Transparency (making it clear on the where, when and how decisions were reached)
- Participation (involving all relevant stakeholders)

The governance of the HSTP is defined and developed within the context and framework of the wider political system of the Federal Democratic Republic of Ethiopia. In other words, it is essential to link the governance structure of the HSTP with that of the Country's overall governance structure and the Federal system.

The HSTP is a sector-wide approach with national health targets and vast resource requirements. It cannot be implemented by the public sector alone, but must also involve the concerted efforts of development partners, the private sector, non-governmental organizations and the community at large. The governance of the HSTP comprises structured consultation forums and a joint decision-making framework. Therefore, to coordinate and oversee the implementation of the sector program, the HSTP will have the consultative and review institutional frameworks described below. The existing fragmented programs and/or donor specific coordination mechanisms should fit into these institutional frameworks.

Joint Consultative Forum (JCF)

The JCF is the highest governance body which decides, guides, oversees and facilitates the implementation of the HSTP. It is also a forum for dialogue and consultations on the overall policy direction, reform and institutional issues of the health sector between the Government, development partners and other stakeholders.

The JCF plays a leading role in mobilizing resources to fund the sector in a sustainable manner; in promoting harmonization for aid effectiveness in the sector and in closely monitoring the implementation of core tracked programs. These programs include the Health Extension Programme, HIV/AIDS prevention and control, Human Resources Development, Reproductive and Family Health/Population and Health Systems Strengthening.

The JCF will also play a leading role in expanding the involvement of the private and NGO sectors in health service delivery.

The JCF shall be chaired by the Ministery of Health. Its members shall include high level representatives of the appropriate federal government bodies, including the head of the Oromia

Health Bureau, representatives of the HPN Development Partner groups (multilateral and bilateral development partners), NGOs, the private sector and health professionals associations.

The JCF shall meet at least every quarter (usually in the months of July, September, January and April).

The Policy and Planning Directorate (PPD) of the Ministry of Health will serve as the Secretariat of the JCF and of the HSTP. The Secretariat is responsible for the follow-up of decisions; for the day-to-day activities of the JCF; for organizing its deliberations, functioning as its reporter and creating an effective linkage with the RJSCs.

The Joint Core Coordinating Committee (JCCC)

The Joint Core Coordinating Committee is a committee that serves as the technical arm of the JCF. The JCCC assists and works closely with the Secretariat of the HSTP in following up the implementation of the decisions of the Joint Consultative Forum and recommendations of the various review missions of the HSTP. The HSTP should have both a Mid-Term Review and a Final Evaluation. It is also responsible for assisting the Secretariat in organizing the review, monitoring and evaluation activities of the HSTP and in co-coordinating the operational research and thematic studies.

The JCCC will be composed of PPD staff and 7 senior staff (with HSTP experience) from the HPN Group. Staff from other MoH Directorates can be invited as required. The Director of Policy and Planning of MoH will chair the JCCC.

MoH-RHBs Joint Steering Committee

The MoH-RHBs Joint Steering Committee is a forum that brings together the Ministry of Health and the Regional Health Bureaus. The meeting is chaired by the Minister of Health, and the participants include the State Ministers of Health, Regional Health Bureau Heads and heads of departments/services of the Ministry and the RHBs. The Committee should meet every two months.

The basic objective of this forum is to facilitate the effective and smooth implementation of the HSTP priority issues. This is done by bridging communication gaps between the two levels; by improving internal harmonization and coordination; by closely monitoring progress and problems at the operational level and by taking joint corrective measures. The Joint Steering Committee will focus on a number of implementation issues including: overview of implementation progress and problems; identification of major implementation bottlenecks such as resource flows, utilization, reporting etc.; introduction of new initiatives, policy guidelines and programs and creating systems and mechanisms for information and experience sharing etc.

6.3. Planning and Budgeting

This chapter describes the health sector's planning and budget systems and how they can be more harmonized - i.e. how they can be developed into the 'one plan, one budget" strategic initiative. The heart of this chapter is the section on Annual Plans, which describes the link between the vertical focus on national priorities and the horizontal linkages which bring in local resources and priorities.

'One plan" is the idea that all the major activities happening at various levels of the health system are included in one joint plan. 'One plan" means that all stakeholders agree to be part of a broader

sectoral plan. The manual sets out how adherence is enforced. The idea is that development partners and implementing partners can see how their inputs fit into the broader sector plan. Development partners can still have their own internal plans for their own use but should fit into the 'one plan" of the health sector. This move towards one plan is challenging and it will require changes in behavior from government and development partners. DPs to ensure that the Implementing Partners (IPs) and NGOs which they fund adhere to HSTP Harmonization Manual (HHM), including the reflection of their activities and resources in sector plans and budgets.

To achieve one plan/one budget, two rules have to be applied rigorously:

- Agreements with all funders need to reflect the priorities and targets of the strategic and annual plans.
- Finance from all sources need to be translated into the Ethiopian chart of accounts and fiscal year.

These rules are compatible with the health sector Code of Conduct which has been signed by Ethiopia's major development partners

The overall planning framework - strategic and annual plans

The HSTPs are nation-wide five-year strategic plans. How can they be implemented?

Learning from past problems with planning and implementation, this HHM proposes that each health facility (hospitals and health centers), woreda, zone and region, plus the federal level, should have two plans (and only two plans) - a Strategic Plan and an Annual Plan. The Strategic Plan is a reflection of HSTP in a particular region or woreda. Annual plans break down these strategic plans further into shorter periods of time. The connections between the overall strategic plan, geographical strategic plans and annual plans should always be clearly stated.

Guided by the key priorities identified by the MoH and HSDP, both strategic and annual plans should be:

- Linked to resource mapping at the appropriate level, which includes financial and non financial resources received from all financing sources - government, development partners, implementing partners, NGOs, fees, etc. This is the connection with the 'one budget" strategic initiative.
- Approved by the relevant local government authority.
- Linked to other plans by time (strategic→annual) and geography (federal→ regional (zonal) →woreda).
- Comprehensive (covering all relevant activities in the health sector). This means including relevant stakeholders activities. It is important that all major activities are reflected in government plans, even if, in the short-term at least, they are not reflected in the main government budget.
- Prioritized and measurable with clearly defined outputs.

How can strategic and annual plans at all levels be compatible with the principle of 'one plan, one budget, one report"? The 'one plan" refers to the fact that these plans are all linked together in effect as sub-plans of the HSTP, broken down by time and geography. 'One plan" also refers to the fact that there are no separate donors or program-specific plans which describe different or contradictory sets of activities. There can, of course, be plans for a particular program or similar, to describe its detailed work. The crucial point is that these should be explicitly linked to the overall annual health plan for the area and should reflect its overall priorities and actions.

6.4. Inter-sectoral Collaboration and Public-Private Partnership

There is an increasing recognition worldwide that health is an integral part of sustainable socio-economic development efforts. In recent years, the United Nations Millennium Development Declaration has become a rallying call to improve health in all parts of the world. The millennium declaration focuses on broad, multi-sectoral approach to every efforts and national plans for development, including health. Countries should strive to achieve great improvement in the health of every citizen in their respective country. To achieve this lofty goal, countries should address, along with the provision of health care, the environmental factors that contribute to the society's collective health and illness by placing particular emphasis on the determinants of health. Health determinants are a range of personal, social, economic, and environmental factors that determine the health status of individuals or populations. Improvement in the health status of people, therefore, cannot be achieved fully by only treating and managing diseases and injuries, but also require collective actions by a wide ranging actors outside the health sector such as agriculture, infrastructure, education, environmental protection, etc. These actors may usually include government agencies at different levels, but other community groups also have vital roles to play in the inter-sectoral collaboration for health efforts. The health sector itself cannot be the exclusive domain of the public sector, but should be a collaborative endeavor through public/ private partnership, the involvement of the NGO sector and private for profit health delivery system.

6.5. Risk Mitigation Strategy

The health sector has identified risks that can hamper the achievements of health outcomes in the SWOT analysis. This shows the strategies to mitigate the major risks of the health sector.

Table 15: Risk Mitigation Strategy

	Rating	Risks/Assumptions	Mitigation strategy
1	High	Sub-optimal service availability and readiness at health facilities, including problem of utilities	The health sector shall implement the following strategies to improve quality through the health systems: improving the functioning of the health facilities (rehabilitating and equipping health facilities, availability of trained staff, address shortage of essential medicines and supplies in health facilities etc.)
2	High	Health emergency	Strengthen health sector and multi-sectoral coordination mechanisms to facilitate joint action on risk reduction, response and recovery; education and information to build culture of health, safety and resilience at all levels; enhance regular risk assessment (hazard, vulnerability, and capacity analysis) and early warning; and development of public health risks profile maps for each woreda; reduction of underlying risk factors to health and health systems; strengthen emergency preparedness for effective health system response and recovery at all levels
3	High	Increasing pull factor for health workers to address inadequate staffing	Increased investment in Human resources for health development: train, recruit, deploy and retain sufficient HRH for effective delivery of the desired health services
4	Medium	Inadequate budget allocation from government	The health sector shall work with all sections of government to ensure buy-in for its programs; Continued political commitment at all levels (national, regional, zonal and district levels) to increase budget allocation to health
5	Medium	Excessive demand of health services due to the community and social health insurance scheme	The health sector shall work with government bodies at all levels and relevant sectors to ensure proper enrolment; implement the mitigations against demand side moral hazard, shall work to improve the capacity at all levels; and shall continue improving quality of health services
6	Medium	Inadequate private sector involvement especially in manufacturing and highest level hospital services	The MoH will work with other Government Ministries and Agencies, Civil Society Organisations, the private sector to attract investment; strengthen Public-Private Partnership
8	High	Sudden Decline in donor source funding	Proactive and innovative domestic financing mechanisms; enhance health partnership and coordination; strengthen harmonized efforts, simplify administrative procedures and improve effectiveness, the 'One plan, one budget and one report" principle; mobilize aligned external resources through enforcement of mutual accountability and trust
7	Medium	Insecurity of neighboring countries that are fragile states	The MoH will work with other Government Ministries and Agencies, Civil Society Organizations, and neighboring countries to prevent and control any cross-border health and health related issues. Strengthening global health diplomacy

Chapter 7

HSTP Monitoring and Evaluation Framework

Chapter 7: HSTP Monitoring and Evaluation Framework

7.1. Measuring progress towards Universal Health Coverage: the focus on equity and quality

The M&E framework, an integral part of the HSTP, builds on the existing M&E system with overarching principles of integration, simplification, and standardization. It is outlined in Figure 1, showing how inputs are translated into outputs, outcomes and impact. System inputs, processes and outputs reflect health systems capacity, whereas outcomes and impact reflect health systems performance.

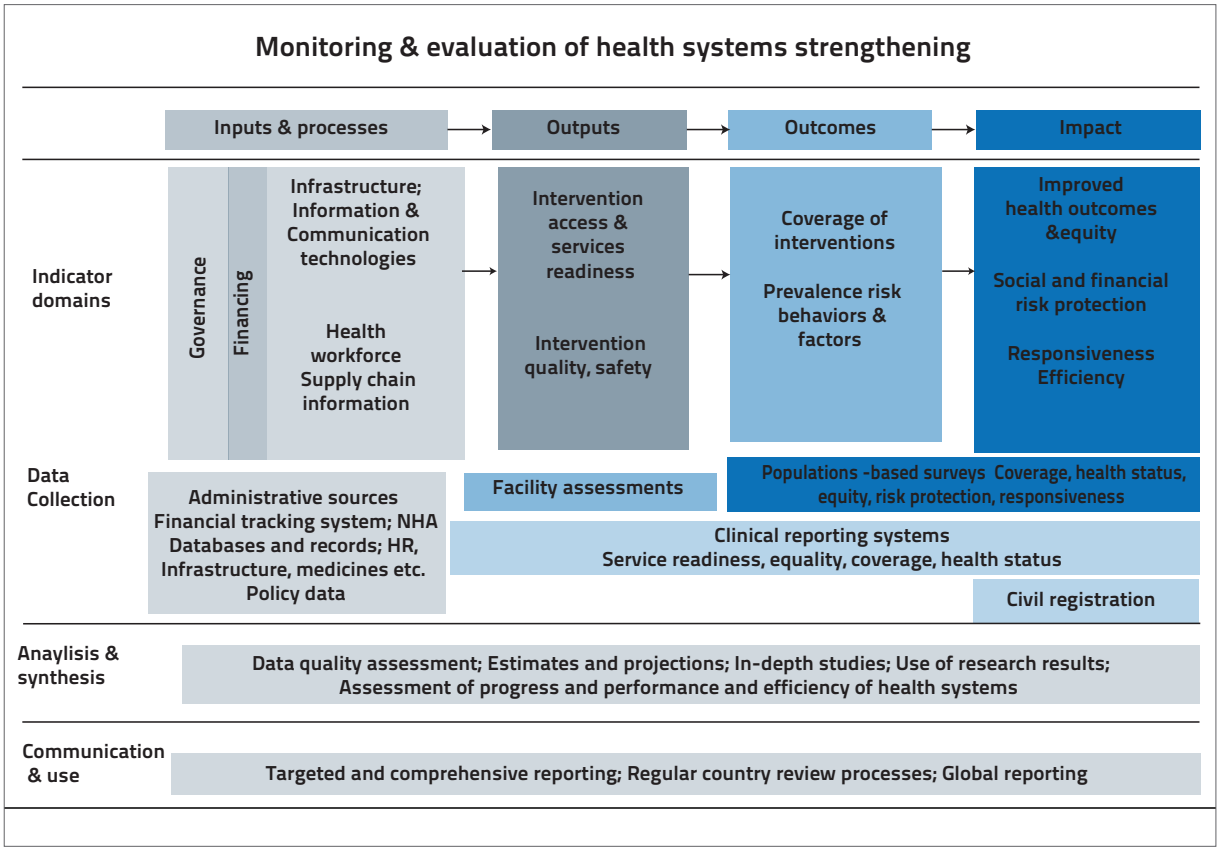


Figure 10.Monitoring and evaluation framework of the health system.

In the HSTP period the M&E system will be transformed to fulfill the information demand for decision making towards quality and equity. The following key interventions will be implemented to transform the existing M&E system. They will be stated in detail in the M&E framework.

Key Initiatives to transform the M&E system

- Digitizing the manual health information system
- Implementing Health Information System Quality Improvement Program (HIQIP) and Linking DQA with SARA as well as conducting district LQAS
- Strengthening accountability framework through scale-up of institutional and community based scorecard and reinforcing towards zero - parallel reporting
- Involving stakeholders in M&E starting from design of intervention to process and impact evaluation
- Strengthen information use culture primarily at local level and link decision with action

Monitoring Equity

At the heart of UHC is a commitment to equity. MoH through HSTP envisions all of its citizens enjoying equitable and affordable access to all types of health services. To realize this, it entails a robust M&E system that highlights status of utilization of health services and desirable healthy practices using key equity lenses. So in addition to measuring average or aggregate levels of indicators, it is essential to have measures disaggregated by a range of demographic (i.e., age and sex), geographical (i.e., urban/rural and regional differences) and socio-economic (i.e., wealth and education) stratifiers as well as to develop appropriate indicators reflecting equity.

Simple measures of inequality, such as difference and ratio, are best suited for comparisons of equity stratifiers that consist of two subgroups (e.g., urban/rural, regions). Difference measures absolute inequality, reflecting the magnitude of difference in the health indicators between two subgroups. The Ratio is an expression of the relative inequality reflecting proportional differences in health among subgroups.

For equity stratifiers that consist of more than two subgroups with natural ordering (i.e., wealth quintiles), complex measures are used to determine inequality across all subgroups: for example, the concentration index (visualized through the concentration curve) is a measure of relative inequality, expressing the disproportionate distribution of services.

Below are core list of indicators to be addressed using the equity stratifier in the HSTP as there is wide disparity by indicated stratifier. The plan is to reduce the inequality in selected stratifiers. The target is to bring ratios of a given stratifier to one and absolute difference to Zero.

Table 16: Core Equity Indicators

1	Ratio of deliveries assisted by Skilled Birth Attendants between pastoralist and non-pastoralist woredas
2	Ratio of deliveries assisted by Skilled Birth Attendants between Rural and Urban woredas
3	Difference of SBA between lowest and highest quintiles
4	Ratio of Pentavalent 3 coverage between median of woredas below half of national median and national median
5	Difference of Pentavalent 3 coverage between bottom and top wealth quintiles of rural Woredas
6	Difference of OPD attendance between lowest and highest quintiles
7	Ratio of OPD attendance between Females and Males
8	Ratio of OPD attendance between Rural and Urban
9	Ratio of OPD attendance Between Pastoralist and Non pastoralist
10	Difference of Stunting between lowest and highest quintiles
11	Ratio of Currently on ART between pediatrics (<15) and Adults (>15)
12	Ratio of Tuberculosis Case Detection between Pediatrics (<15) and Adult (>15)
13	Ratio of facility utilities (water, electricity, sanitation facilities and ICT network) between pastoralist and non-pastoralist
14	Availability of essential drugs by Rural and Urban facilities

Monitoring Quality of Care

Strategic Theme 2 'Excellence in quality assurance", described the quality dimensions efficiency, effectiveness, acceptability, equitability, safety and timeliness. These dimensions will be further refined through the development of national health care quality strategy. Measures in all dimensions are included in the M&E framework. The Key Performance Indicators of hospitals will be revised and cascaded to health facilities to enable comprehensive assessment of the quality related performance of the heath care system.

The M&E system will strengthen the quality of health service through provision of information to individuals, families and communities to make informed choices. It also focuses on providing information to health workers across organizational boundaries, continuum of care, and provides current evidence on best practice and expert system to ensure optimum care for patients.

Monitoring Universal Health Coverage

Monitoring progress towards UHC should be integral to tracking overall progress in health and performance. To monitor UHC, 17 'tracer" indicators are identified to show levels of coverage with health services and financial protection, with a focus on equity. The indicators are selected based on criteria that reflect Ethiopian unique epidemiological, demographic profile and economic progress as well as measures of progress that are valid and comparable among countries. The indicators will be aggregated to an index that provides a snapshot of health system performance called 'UHC index". A target of at least 85% coverage of essential health services is set for UHC index.

Table 18: Core Indicators to measure Universal Health Coverage (UHC index)

I	Health Service Coverage
1	Contraceptive Prevalence Rate (CPR)/ CAR
2	Deliveries attended by skilled health personnel
3	Proportion of women having at least 4 visits of Antenatal Care
4	Pentavalent 3 Immunization coverage/ Measles Immunization Coverage
5	TB case detection rate for all forms of TB
6	% Women age 30 - 49 years screened for cervical cancers
7	ART Coverage (Currently on ART)
8	Number of malaria deaths per 100,000 population at risk
9	Proportion of households with access to improved latrine and hand washing facilities
10	Outpatient attendance per capita
II	Financial Protection Coverage
11	Proportion of households enrolled in community based health insurance
12	Proportion of households with catastrophic out-of-pocket expenditure exceeding 40%
13	Out of Pocket Expenditure
III	Health Systems
14	Availability of essential drugs for primary, secondary and tertiary healthcare
15	Proportion of health facilities met data verification factor within 10% range for SBA
16	Health workers per 1,000 population
17	Facility with functional utilities (Electricity, water, sanitation facilities and ICT networking equipment)

7.2. Transforming data into information and information into action: the data cycle

HSTP identified evidence based decision-making strategic objectives to transform the existing M&E system. That means an effective cycle of data gathering, sharing, analysis, understanding, reporting and application in decision-making - the process whereby data are transformed into information and knowledge for action.

This section will describe components of data cycle. It highlights the current situation and indicates improvements to be made in the coming years. Details of the data cycle components are explained in the Road Map of Health Information System (HIS 2013-2020). To address the intent of the HSTP, the HIS will further be developed to National Monitoring & Evaluation Strategy.

Data sources

Multiple data sources will be used in the M&E framework of HSTP. Data sources will include routine administrative sources (such as the Health Management Information System), household surveys (such as the Demographic Health Survey, MIS, EPI coverage survey, NHA), health-facility surveys (such as Service Provision Assessment – SPA+ and Service Availability and Readiness Assessment – SARA), disease and behavioral surveillance, civil registration and vital statistics, financial and management information, censuses and research studies.

Administrative reports are a type of report that primarily shows status of project implementation. MoH receives these reports from Agencies, Directorates, RHBs and different stakeholders. Administrative reports provide information on health inventories, supervision, logistics management, financial resource flows and expenditures at national and sub-national levels that are not tracked through routine health management information system.

Data from both public and private sectors will be gathered to provide a full picture of health system performance. Since many determinants of health are found outside the health system (i.e. education, road infrastructure, water and sanitation), it is crucial to integrate data sources from other sectors. Multi-sectoral monitoring will include a variety of programs, such as nutrition, water and sanitation and HIV/AIDS programs.

Registration of population vital events from birth to death will enable the routine production of vital statistics essential for improving health outcomes. It will allow a better measurement of demographic and epidemiological patterns and trends as well as improve monitoring of health inequalities. In this regard, the Ministry of Justice has already established the National Vital Events Registration Agency (VERA), and the National Vital Events Registration Council (including MoH) is already in place.

MoH and CSA have been working closely on identifying the data gaps that could be filled from population based sources. Inclusion of key indicators relevant for the health sector in the Population and Housing Census and in the Ethiopia Demographic and Health Survey is the reflection of such close collaboration.

Indicators

List of input, output, outcome and impact indicators are included in the M&E framework, together with their baseline and target in the HSTP period. Input indicators will help ensure that resources are properly mobilized, equitably distributed and efficiently utilized for ensuring quality and addressing inequalities. Output indicators will be used to measure utilization and coverage, and assess whether the services are provided to the intended target groups. Outcome and impact indicators have the advantage of being 'integrative" (i.e. many different factors are 'integrated" into the outcome/impact), reflecting the end result of interventions within and outside the health sector. There are a total of 167 indicators selected to monitor and evaluate the HSTP (56 to measure health system performance and 111 indicator related to program and health outcomes). In addition, Agencies and Directorates in the MoH will have specific indicators related to their operational and program monitoring and evaluation.

Data quality

Issues affecting data quality are not only related to technical factors, such as data-collection tools and processes and IT devices, but include also organizational and behavioral factors: all these factors will be properly addressed in HSTP to ensure sustainable production and use of good-quality information. The information from routine data source such as HMIS and information reported from population based surveys such as DHS may have some discrepancy due to different methodology implemented. Caution should be exercised in interpreting differences between DHS and HMIS estimates that may be related to different causes, including: (i) different data sources (i.e. DHS is population-based, while facility-based source is used in HMIS); (ii) different timeframe of indicators (i.e. percentage of skilled birth attendance from DHS refers to the five years preceding the survey, while it refers to the same year from HMIS); (iii) different definition of indicators (i.e. antenatal care coverage from DHS includes only those visits performed by health professionals,

while all visits are included in the estimation of antenatal care coverage from HMIS); and (iv) different type of errors (i.e. sampling errors and recall bias from DHS, while errors in calculation and reporting, with subsequent over- or under-estimation of indicators, are more frequent in HMIS). Thus, the M&E framework will ensures the reliability of different data sources through conducting special surveys, conducting similar regional level surveys and conducting district level Lot Quality Assurance Sampling (LQAS).

MoH has recently prioritized and undertaken a major nationwide initiative with the aim of enhancing data quality. Accordingly, Health Information Quality Improvement Plan (HIQIP) has been developed and implemented nationally to overcome the challenges related to data quality. As part of the HIQIP initiative, the MoH has adopted the WHO Data Quality Assessment (DQA) tool and has been conducting regular data quality assessments to identify gaps and improve data quality.

MoH will build capacity of RHBs and WoHOs to cascade routine RDQA to lower levels. To enhance the reliability and credibility of routine health information system, DQA will be integrated with SARA. Then DQA-SARA will include Disbursement Linked Indicators (DLI) such as CPR, ANC 1st Visit, Penta III, Skilled Birth Attendant and report timelines. In addition to this, guidelines will be prepared to assess data quality as an entry to facility technical assistance, supportive supervision and mentoring. Additionally, detail assessment of data quality will be conducted in collaboration with CSA.

Data management

The information from various sources will be kept in an integrated data warehouse and repository for easy access, triangulation and made accessible to all stakeholders, so that self-generated reports and analytical reports will be produced by responsible agencies and disseminated. Data exchange standards will be implemented in the various HIS components to enable interoperability among the different systems. In order to realize this, rules, regulations and guidelines will be issued and infrastructure will be developed. As depicted in the figure below, an integrated HIS is designed to pull together data from a range of sources, so that all information is stored in such a way that it can be easily found by users in different locations, in a form that is suited to their needs. The HIS should have in place appropriate measures to ensure data security as well provisions for data confidentiality based on appropriate legislation and/or policies that aim to protect the privacy of patients and healthcare providers. It includes consent for both information storage and use. Privacy in health, however, needs to be considered in line with broader cross-sectors privacy regulations.

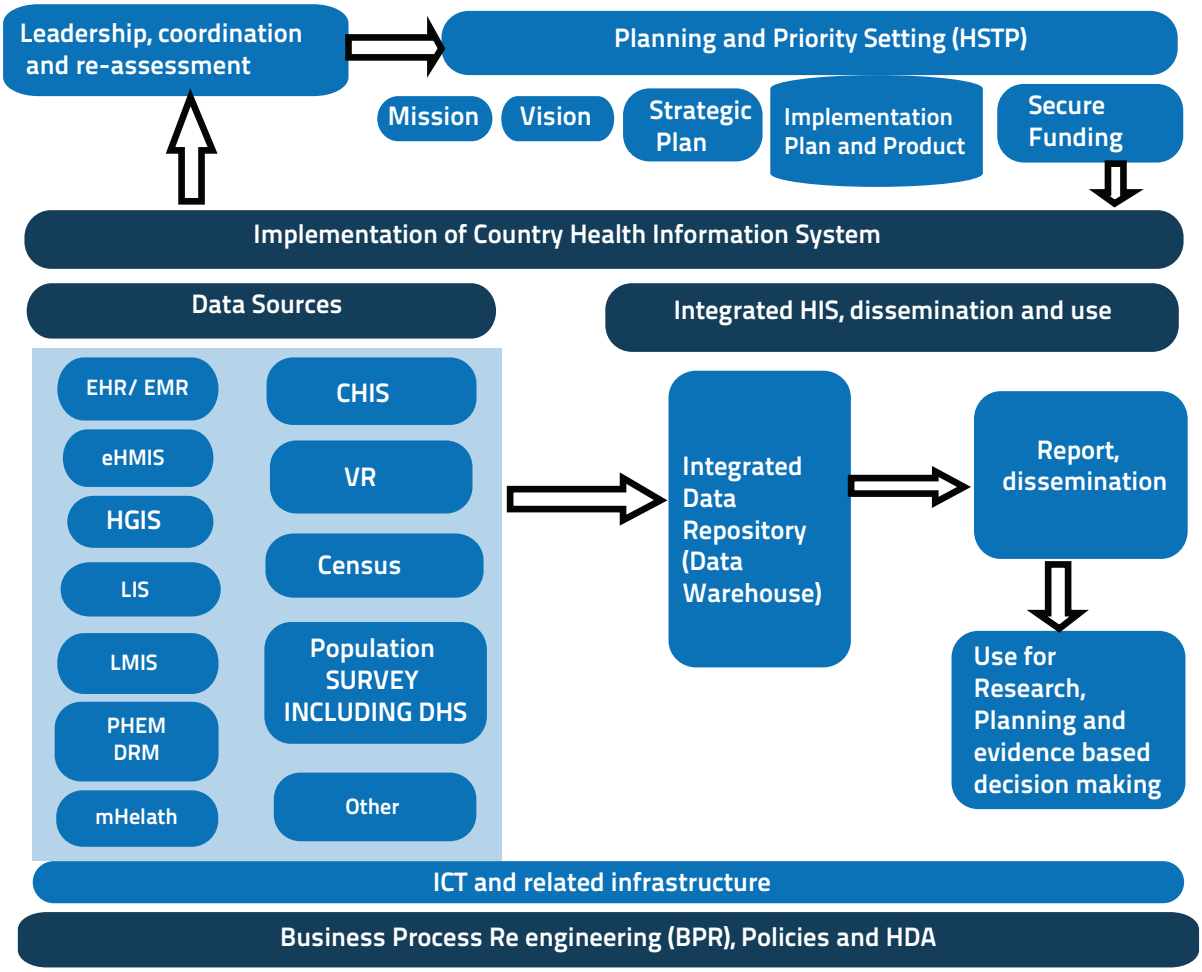


Figure 11 : HIS Implementation Framework

Concerning data analysis, due emphasis is given on use of different techniques. At local level decision support systems and simple analysis mechanisms have been established. At regional and federal levels progress tracking, estimation, projection and modeling tools as well as in-depth analysis tools have been used. For equity monitoring purposes, simple measures, such as differences and ratios across stratifiers (dimensions of inequality), will be used to assess distributional inequalities, as well as complex indexes, such as slope index of inequality and concentration index, will be conducted to provide additional measures of inequalities.

Data reporting

Information flow of the existing HIS system follows the 'one report" principle of 'one plan-one budget-one report" harmonization, meaning that all institutions and stakeholders report according to the standard reporting format based on the common set of indicators and to one monitoring calendar, as stipulated in the Health Harmonization Manual.

Involvement of development partners and programs in the overall process of health management information system revision, and efforts to regularly review and provide feedback has significantly reduced the rampant parallel reporting. HSTP will regularly assess reporting mechanism and implement interventions to ensure accountability towards **"Zero Tolerance for Parallel Reporting".**

On the other hand, the PYRAMID shape information flow will be systematically strengthened by identifying more and more indicators to be utilized at lower level such as districts and health facilities. For instance, use of Hospitals Key Performance Indicator (KPI) will be enhanced to address the quality and equity of service delivery at local level.

Furthermore, Ethiopia will contribute to global reporting for the production of global statistics and assessment for the achievement of global goals (such as Sustainable Development Goals) as well as comply with International Health Regulations concerning selected epidemic prone diseases and public health emergencies of international concern.

Use of information for action

Available information needs to be disseminated in a timely manner and used for strategic decision making at all levels of the health system. Focus will be given on strengthening information culture, knowledge management and capacity to use information for action at all levels.

To systematically undertake follow-up on the decisions and recommendations from meetings, reports and studies, a decision tracking matrix will be developed along with the annual comprehensive plan. It will serves as a frame work for linking data with action within the governance structure of the health sector. The Policy Planning Directorate will produce a report that will detail the level of execution of each actions, barriers and alternative solutions.

Dissemination and communication

M&E findings will be disseminated to stakeholders using different channels. Monthly, quarterly, and annual reports will be produced in the health sector according to the Health Harmonization Manual. Bi-annual and annual performance reports will be submitted to the relevant government bodies. M&E digests, health bulletins, newsletters and fact sheets will be produced as per established schedules. The MoH has been publishing Health and Health Related Indicators annually and more recently, RHBs have started producing similar materials. These publications provide information on demographics, health facility and personnel distribution, annual service coverage and disease patterns. All regions will have their own web sites where similar information can be obtained electronically.

MoH will strengthen electronic outlets, such as the web site and social media, for dissemination of results. Furthermore, documentation of best practices and dissemination of results will also be promoted at the international level through participation in international conferences, contribution to the debate on global health issues and publication of scientific articles in international journals.

Performance review

The HHM calls for every two months, quarterly, biannual and annual participatory review meetings at all levels. In these meetings, local authorities and health partners are brought together with health institutions' staff to review performance, based on the health institution's own self-assessment, and to determine actions needed to ensure achievement of the annual plan. The health sector officials involved represent the implementing institutions for each level: the MoH gathers RHB managers and program experts in an Annual Review Meeting (ARM); RHBs meet ZHD, WorHO and hospital managers; WorHOs review performance in the presence of health center and health post heads and staff and Health Posts gather HEWs and volunteer community health workers.

During these meetings, strengths and challenges will be reviewed and future plans will be agreed upon. To enhance the relevance of ARM, in-depth studies will be conducted on selected key themes. In addition, MoH will strengthen the capacity of regions to conduct self- evaluation that considers their specific context.

MoH will conduct inspections to verify activities undertaken at grass roots level. Inspections will be a mechanism to verify the routine reports as well as to promote accountability, ensuring compliance with agreed performance standards and targets.

MoH has developed the maternal, neonatal and child health (MNCH) scorecard and progress in the MNCH program is monitored every quarter. The MNCH scorecard visually highlights high-performing areas as well as low-performing areas showing bottlenecks to be addressed through locally adapted solutions. Based on lessons learned, a disease scorecard is developed to inform on the status of morbidity and mortality. There will be an expansion of scorecards to address programs that need multi-sectoral coordination such as Nutrition, WASH, Accountability and Health System Governance. Additionally, the scorecard will be cascaded to lower levels. The scorecard will be further strengthened to compare the change in Woredas with poor infrastructure.

Evaluation

Different evaluation mechanisms are outlined in the Health Harmonization Manual, including Joint MoH-HPN Review Mission (JRM), Mid-Term Review (MTR) and Final Evaluation of the strategic plan.

In response to the shift to results and outcomes, impact evaluation will be institutionalized in the M&E system to measure the causal effect of priority programs on an outcome of interest. Not all programs warrant impact evaluation. Only selected few interventions that are innovative, where little is known on their effectiveness in global or Ethiopian context, which can be scaled up, are strategically relevant and their results could be used to inform key policy decisions are eligible for impact evaluation. Focus will be given to impact evaluation methods that fit into the operational context of programs. With this in mind, and to minimize cost for impact evaluation, approaches such as contribution analysis will be emphasized to get harmonized efforts on the study of interest. Joint evaluations, country wide evaluations and thematic evaluations will be part of the impact evaluation institutionalization effort.

Involvement of all stakeholders

HSTP promotes the involvement of all stakeholders in the M&E process including finance providers, managers and users of health service. From this perspective, it is crucial to further promote community participation in planning, development, implementation, review and appraisal of health service delivery. Thus communities will be involved in rating the health system as well as the level of community involvement/contribution in the health sector will be assessed. Community scorecard will be implemented to regularly measure the responsiveness of the health system, satisfaction of the community and identify priority areas of the health sector.

Recently the MoH has started involvement of key stakeholders in review of sector performance which is called '360 Performance Evaluation". It aims to understand service provision capacity of MoH from multiple perspectives. The results of the evaluation are used to improve the process of service provision, communication and to focus on value added activities. It is one of the tools to address harmonization and alignment in the health sector. In the review process regions, agencies, directorates, development partners, professional associations, private sector and civic societies are involved in addition to performance monitoring of PPD and self-evaluation. The involvement of civil society entities such as the cancer society and youth forum helps to deal with equity. In addition to this, HSTP will focus on measuring the contribution of key stakeholders as well as joint assessment of harmonized efforts.

Annex 1: The Indicators and Targets for HSTP Monitoring

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
C1. Improve health status											
1	Life Expectancy at Birth (years)	Impact	64				69		Census/World Health Statistics	10 years	Population
2	Maternal Mortality Ratio (MMR) per 100,000 live births (LB)	Impact	420				199		EDHS/ Vital registration	5 years	Population
3	Under 5 year mortality – per 1,000 LB	Impact	64				30		EDHS/Vital registration	5 years	Population
4	Infant mortality rate per 1,000 LB	Impact	44				20		EDHS/Vital registration	5 years	Population
5	Neonatal mortality rate per 1,000 LB	Impact	28				10		EDHS/Vital registration	5 years	Population
6	Stunting prevalence in children aged less than 5 years (%)	Impact	40				26		EDHS	5 years	Population
7	Wasting prevalence in children aged less than 5 years (%)	Impact	9				4.9		EDHS	5 years	Population
8	Under weight prevalence in children aged less than 5 years (%)	Impact	25				13		EDHS	5 years	Population
9	HIV incidence rate (%)	Impact	0.03				60% reduction from 2010 status		ANC Surveillance	2-3 Years	ANC surveillance sites

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
10	HIV new infection among children (%)	Impact	12				Zero new infection		Special Survey	2-3 Years	Health facilities
11	TB Prevalence Rate (per 100,000 populations)	Impact	211				137		WHO Global TB report/ National TB Prevalence Survey	Annual/ 5 Years	Population
12	TB Incidence Rate (per 100,000 populations)	Impact	224				156		WHO Global TB report	Annual	Population
13	TB Mortality Rate (per 100,000 populations)	Impact	32				17		WHO Global TB report	Annual	Population
14	Malaria case incidence	Impact	NA				40% reduction compared with 2015 status		MIS	3-5 years	Population
15	Mortality due to Malaria	Impact	NA				40% reduction compared with 2015 status		MIS	3-5 years	Population
16	Death and injuries from road traffic accidents	Impact	NA				Stabilize & reduce compared with 2015 status		HMIS	Annual	Health facility
17	Percentage reduction of premature mortality from NCDs (%)	Impact	NA				12.5% reduction from 2015 status		Vital registration/Multiple Indicator Survey	5 - 10 years	Population

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
C2. Enhance Community Ownership											
18	Proportion of kebeles graduated as Models (%)	Output	0	30	50	60	70	80	Admin Report	Annual	Woreda Health Office
19	Number of HHs tested for level 1 HEP competency (In millions cumulative)	Output	0	0	0.5	1	2	3	Admin Report	Annual	Woreda Health Office
20	Community contribution (in kind and cash) - USD in million annually	Outcome	NA	168.7	183.7	199.9	217.6	236.9	Admin Report	Annual	Woreda Health Office
F1: Improve efficiency and effectiveness											
21	Budget utilization and liquidation rate	Output	NA	100	100	100	100	100	Admin Report	Routine	Woreda Health Office
22	Proportion of households with catastrophic out-of-pocket expenditure exceeding 40%	Output	3					2.5	WMS, NHA & EDHS	2-3 Years	Population
P1: Improve Equitable Access to Quality Health Services											
	Reproductive, adolescent, maternal and child health										
23	Total Fertility Rate (TFR)	Impact	4.1					3	EDHS	5 years	Population
24	Contraceptive Prevalence Rate (CPR) (%)	Outcome	42					55	PMA/ EDHS	Annual/ 5 years	Population

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
25	Unmet need for family planning (%)	Outcome	24					10	EDHS	5 years	Population
26	Adolescent pregnancy rate (%)	Impact	12					3	EDHS	5 years	Population
27	Proportion of women having at least 4 visits of Antenatal Care (%)	Outcome	68	75	80	85	90	95	HMIS/ EDHS	Routine/ 5 years	Health facilities/ Population
28	Deliveries attended by skilled health personnel (%)	Outcome	60	66	72	78	84	90	HMIS/ EDHS	Routine/ 5 years	Health facilities/ Population
29	Postnatal care coverage (%)	Outcome	90	91	92	93	94	95	HMIS/ EDHS	Routine/ 5 years	Health facilities/ Population
30	Institutional maternal mortality rate (%)	Outcome	NA					<1%	HMIS/ Special Survey	Routine/ 2-3 year	Health facilities
31	Still birth rate (Per 1000)	Outcome	18					10	HMIS/ EDHS	Routine/ 5 years	Health facilities/ Population
32	Cesarean section as a proportion of all births	Output	2.2					8%	HMIS	Routine	Health facilities
33	Percentage of HIV positive pregnant who received ARV (ART per Option B +) to prevent MTCT of HIV	Outcome	59	75	80	85	90	95	HMIS	Routine	Health facilities
34	Prevalence of obstetric fistula (number of cases)	Outcome	NA					<1,600	Special Survey	2-3 Years	Population

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
35	Pentavalent 3 Immunization coverage	Outcome	94	94	95	96	97	98	HMIS/ EDHS	Routine/ 5 years	Health facilities/ Population
36	Measles (MCV1) immunization coverage	Outcome	90	91	93	94	95	95	HMIS/ EDHS	Routine/ 5 years	Health facilities/ Population
37	Fully immunized children coverage	Outcome	86	87	89	91	93	95	HMIS/ EDHS	Routine/ 5 years	Health facilities/ Population
38	Drop Out rate (penta1-MCV1)	Outcome	10	7	6	5	4	3	HMIS/ EDHS	Routine/ 5 years	Health facilities/ Population
39	Proportion of Woredas with >= 80% of Pentavalent 3 Immunization coverage	Outcome	50	79	85	90	95	100	HMIS/ EDHS	Routine/ 5 years	Health facilities/ Population
40	Number of new cases of confirmed poliomyelitis	Outcome	10	0	0	0	0	0	Surveillance	Weekly	Health facilities/ Population
41	Met need for emergency obstetric care (EmOC) service	Output	NA			85		100	Special Survey	2-3 Years	Health facilities
42	Percentage of HCs providing BEmONC	Output	56%					100	Special Survey	2-3 Years	Health facilities
43	Percentage of hospitals providing CEmONC	Output	83%					100	Special Survey	2-3 Years	Health facilities
44	Proportion of facilities providing facilities	Output	62			85		100	Survey (SPA+)	3-5 years	Health

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
	(outpatient curative care, child vaccination and child growth monitoring)										
45	Number of health facilities that provide IMNCI services as per the standard	Output	89	92	95	97	99	100	Admin Report	Annual	Health facilities
46	Proportion of newborn with neonatal sepsis who received treatment	Outcome	NA	24	38	52	66	80	HMIS	5 years/ Routine	Health facilities
47	Proportion of woredas that Health provide iCCM services as per the standard	Output		74	95	96.3	97.5	98.8	100 Admin report	Annual	Woreda Office
48	Proportion of asphyxiated newborns who were resuscitated	Outcome	NA	41	53	65.5	77.8	90	HMIS	Routine	Health facilities
49	Proportion of under five children with ARI who received antibiotics	Outcome	27	37.6	48.2	58.8	69.4	80	EDHS/HMIS	5 years/ Routine	Health facilities
50	Proportion of children under five years who seek treatment in the first 24 hours of onset of fever among those who reported fever in the last two weeks	Outcome	33	46.4	59.8	73.2	86.6	100	EDHS/HMIS	5years/ Routine	Population/ All health facilities
51	Proportion of under five children with diarrhea who received ORT	Outcome	31	42.8	54.6	66.4	78.2	90	EDHS/HMIS	5years/ Routine	Health facilities

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
52	Proportion of VLBW newborns who received KMC	Outcome	10	59	72	80	85.6	90	EDHS/HMIS	5 years/ Routine	Population/ All health facilities
	Nutrition										
51	Proportion of children aged 6-59 months who received vitamin A supplementation	Outcome	84	91	95	95	95	95	HMIS	Routine	Health facilities
52	Proportion of children aged 2-5 years de-wormed	Outcome	91	84	94	95	96	97	HMIS	Routine	Health facilities
53	Proportion of under 5 children with regular growth monitoring	Output		60	70	80	90	95	HMIS	Routine	Health facilities
54	Availability of quality assured iodized salt	Output	96	100	100	100	100	100	Admin report	Routine	Institutions
55	Proportion of households using iodized salt	Outcome	15					80	EDHS	5 years	Population
56	Prevalence of anemia in women of child bearing age	Outcome	16.6					12.15	EDHS	5 years	Population
57	Proportion of exclusive breast feedings in the first six months	Outcome	52					72	EDHS	5 years	Population
58	Proportion of pregnant women supplemented with folic acid and iron folate	Output	19	50	70	80	90	100			

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
59	Proportion of hospitals implementing Baby-Friendly Hospital Initiative	Output		50	70	80	90	100	Admin report	Routine	Institutions
	Prevention and control of communicable and non-communicable diseases										
60	Percentage of Adults age 15-49 years using condom with non-regular partner during the last sexual act	Outcome	33.7		60			80	EDHS	5 years	Population
61	Percentage of laborers and other work forces in investment corridors reached with prevention program-package of services at least with targeted BCC	Outcome	20	82	84	86	88	90	Special survey	2-3 years	Population
62	Proportion of people living with HIV who know their HIV status	Outcome		82	84	86	88	90	HMIS	Routine	All health facilities
	ART Coverage (Currently on ART)										
	Adults (age 15+)	Outcome	55	82	84	86	88	90	HMIS	Routine	All health facilities
63	Children age 0-14 years	Outcome	14	40	50	60	70	85	HMIS	Routine	All health facilities
64	Percentage of people receiving antiretroviral therapy with viral suppression	Impact		82	84	86	88	90	HMIS	Routine	All health facilities

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
65	Proportion of STI cases diagnosed and treated	Outcome	34	50	55	60	65	70	EDHS/HMIS	Routine/5 years	Population/ All health facilities
	TB										
66	TB case detection rate for all forms of TB	Outcome	61	79	81	83	85	87	HMIS	Routine	Health facilities
67	TB treatment success rate	Outcome	92	95	95	95	95	95	HMIS	Routine	Health facilities
68	Cure rate for bacteriologically confirmed TB cases	Outcome	77	77	80	84	87	90	HMIS	Routine	Health facilities
69	Number of laboratory-confirmed MDR-TB cases enrolled on second-line anti-TB treatment during the specified period of assessment	Outcome	653	1500	1800	2625	3000	3375	HMIS	Routine	Health facilities
70	MDR-TB Cure Rate	Outcome	45	65	68	70	72	75	HMIS	Routine	Health facilities
71	Proportion of Disability grade 2 among new leprosy cases	Outcome	18	12	10	9	7	3	HMIS	Routine	Health facilities
	Malaria										
72	Number of laboratory confirmed malaria cases (in Millions)	Outcome	5.28	4.66	4.4	3.87	3.31	2.72	HMIS/PHEM	Routine	Health facility

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
73	Number of woredas starting malaria elimination	Outcome	0			25		50	Admin Report	Routine	Woreda Health Office
74	Number of malaria deaths per 100,000 population at risk	Impact	4	3.6	3.3	2.4	1.5	0.6	HMIS/PHEM	Routine	Health facility
75	Proportion of pregnant woment who slept under LLIN the previous nigh	Outcome	64.2		75			90	MIS	3-5 years	Population
76	Proportion of children under five years who slept under LLIN the previous night	Outcome	64.5		75			90	MIS	3-5 years	Population
77	Proportion of children under five years who sought treatment within 24 hrs. from onset of fever	Outcome	32.6		80			100	EDHS/MIS	3-5 years	Population
	NTD										
78	Prevalence of trachomatous trichiasis (TT) per 1000	Impact	19.5					<1	Survey	3-5 years	Population
79	TF prevalence in 1-9 years old	Impact	24.75					<5	Survey	3-5 years	opulation
80	Microfilaria (mf) prevalence in all surveyed villages	Impact	40					<0.5	Survey	5 years	Population
81	Prevalence of schistosomiasis among children 5-14 years of age	Impact	4.43					<1	Survey	3-5 years	Population

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
82	Prevalence of soil-transmitted) helminthes (STH) among school -age children (5-14	Impact	25.7					<20	Survey	3-5 years	Population
83	Number of Woredas with 80% eligible population swallowed MDA drugs for lymphatic filariasis	Outcome	37	54	70	80	94	100	HMIS	Annually	Woreda Health Office
	NCD										
85	Proportion of Women age 30 - 49 years screened for cervical cancers	Output	0.60%					20%	HMIS	Routine	All health facilities
86	Prevalence of NCDs risk factors disaggregated by type										
86.1	Prevalence of raised blood sugar	Outcome	TBD					Zero percent increase from baseline	Steps	5 years	Population
86.2	Prevalence of raised blood pressure	Outcome	TBD					Percent Reduction 12.5%	Steps	5 years	Population
86.3	Prevalence of tobacco use persons age 15+	Outcome	TBD					Percent Reduction15%	EDHS/Steps/ GATS	5 years	Population
86.4	Prevalence of harmful use of alcohol in persons age 15+	Outcome	TBD					Percent Reduction 5%	EDHS/Steps	5 years	Population

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
86.5	Prevalence of insufficient physical activity	Outcome	TBD					Percent Reduction 5%	Steps	5 years	Population
86.6	Prevalence of low fruit & vegetable consumption persons age 18+	Outcome	TBD					Percent Reduction 7.5%	Steps	5 years	Population
86.7	Prevalence of current khat consumption persons 15+	Outcome	7.7					Percent Reduction 35%	EDHS/Steps	5 years	Population
86.8	Population mean salt intake in persons age 18+	Outcome	TBD					Percent Reduction 15%	Steps	5 years	Population
86.9	Percent of popoulation overweight and obese	Outcome	TBD						Steps	5 years	Population
87	Detection of new cases of asthma/100,000 population /year	Output	5000					15000	HMIS	Routine	All health facilities
88	Number of new and repeat cases of rheumatic heart disease detected	Output						> by 10%	HMIS	Routine	All health facilities
89	Treatment of cases with rheumatic heart disease (with benzathine penicillin)	Output	3%					25%	HMIS	Routine	All health facilities

	Indicators	Type	Yearly Target (2015/16 – 2019/20) Baseline	1	2	3	4	5	Source	Periodicity	Level of Data Collection
90	Morbidity attributed to injuries disagregated by type (RTA, Others)	Output	TBD/Steps				Percent Reduction 25%		HMIS	Routine	All health facilities
91	Prevalence of viral hepatitis (HBV and HCV)	Outcome	10% for HBV and 2.5% HCV				Percent Reduction 10%		EDHS	5 years	Population
92	Proportion of HCV patients diagnosed who received treatment	Output					50% Diagnosed received treatment		HMIS	Routine	All health facilities
93	Rate of cataract surgery/ 1,000,000 population/year	Output	576				2000		HMIS	Routine	All health facilities
94	Proportion of eligible population who received mental health service disagregated by disease type										
94.1	Psychosis	Output	2%				30%		HMIS	Routine	All health facilities
94.2	Depression	Output	1%				20%		HMIS	Routine	All health facilities
94.3	Bipolar Disorder	Output	2%				30%		HMIS	Routine	All health facilities
94.4	Epilepsy	Output	15%				50%		HMIS	Routine	All health facilities
95	Proportion of eligible population treated for substance use disorder disagregated by substance type										

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
95.1	Tobacco	Output	0%					15%	HMIS	Routine	All health facilities
95.2	Alcohol	Output	1%					15%	HMIS	Routine	All health facilities
96	Proportion of Woredas with mental health services	Output		60	70	80	90	100	Admin report	Routine	All health facilities
	Hygiene and Environmental health										
97	Proportion of households with access to improved latrines and hand washing facilities	Outcome	<28		60		82		EDHS/ WMS	5 years/ 2-3 years	Household
98	Proportion of households using household water treatment and safe storage practice	Outcome	10		25		35		Special Survey	2-3 years	Household
99	Proportion of Open Defecation Health Free (ODF) and verified kebeles	Output	18		50		82		Special Survey	2-3 years	Woreda Office
100	Proportion of health institutions with gender and disability sensitive complete WASH package	Output	NA	20	30	40	50	60	Special survey/ Admin Report	2-3 years/ routine	All health facilities
101	Proportion of households with proper solid waste collection and disposal service	Output	NA	10	15	20	30	40	Admin Report/ Special survey	Annual/ 2-3 years	Household
102	Number of Sanitation Marketing										

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
	Non- Pastoralist	Input	20	50	130	210	290	400	Admin Report	Annual	Town administration
	Pastoralist	Input	5	20	40	60	80	100	Admin Report	Annual	Town administration
	Clinical Service										
103	Outpatient attendance per capita	Output	0.48	0.8	1	1.5	1.8	2	HMIS	Routine	All health facilities
104	Bed Occupancy Rate	Output	68	70	75	80	85	85	HMIS	Routine	All health facilities
105	Average length of stay (in days)	Output	4.3	5	5	5	5	5	HMIS	Routine	All health facilities
106	Emergency patient triaged within 5 minutes	Output	80	90	100	100	100	100	Admin Report	Routine	All health facilities
107	Waiting time for elective surgeries in every hospital (in months)	Output	NA					1	Admin Report	Routine	All health facilities
108	Surgical site infection rate	Output	1.8	1.5	1	1	0.5	0.1	Admin Report	Routine	All health facilities
109	Proportion of hospital and regional laboratories with SLIPTA Star-levels 1-5	Input	60	70	80	90	95	100	Admin Report	Routine	EPHI
110	Proportion of health center laboratories with SLIPTA Star-levels 1-5	Input	1	5	10	13	15	20	Admin Report	Routine	EPHI

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
111	Proportion of laboratories of general and referral hospitals accredited with ISO 15189 and/or 17025 (%)	Input	2	20	40	60	80	100	Admin Report	Routine	EPHI
112	Proportion of Health Centers implementing comprehensive Laboratory Quality Management System (LQMS)	Input	75	80	85	90	95	100	Admin Report	Routine	EPHI
113	Proportion of blood collected from VNRBDs (voluntary, non-remunerated blood donation)	Output	62	70	80	90	95	100	Admin Report	Routine	NBTS
114	Proportion of hospitals accessing 80% of blood from the NBTS and its network	Output	NA	20	40	60	80	100	Admin Report	Routine	Health Facility/ NBTS
	P2: Improve Health Emergency Risk Management										
115	Proportion of affected people provided rehabilitation	Outcome	36	80	85	85	85	95	Admin Report	Annual	EPHI
116	Proportion of woredas and health facilities assessed annually for levels of safety, security and preparedness	Output	NA	50	60	70	80	85	Admin Report	Annual	EPHI
117	Proportion of epidemics controlled within the standard of mortality	Outcome	NA	50	60	75	85	85	Admin Report	Annual	EPHI

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
118	Proportion of health facilities reporting complete and timely weekly diseases report	Output	77	85	90	95	95	95	Admin Report	Annual	EPHI
119	Proportion of identified potential epidemics with adequate Emergency Drug Kits (EDKs) and other supplies	Outcome	71	75	80	85	90	95	Admin Report	Annual	EPHI
	P4: Improve regulatory system										
120	Inspection coverage of food establishment	Output	60%	65%	75%	80%	85%	90%	Admin Report	Annually	FMHACA
121	Number of registered food	Output	92	200	600	700	900	600	Admin Report	Annually	FMHACA
122	Quality and safety ensured food available in the market	outcome	NA	-	-	85%	-	100%	Admin Report	Annually	FMHACA
123	Consignment laboratory test coverage of food	output	14%	30%	45%	60%	75%	80%	Admin Report	Annually	FMHACA
124	Post market surveillance coverage of food available in the market	output	10%	14%	34%	59%	79%	100%	Admin Report	Annually	FMHACA
125	Number of food establishments that implement internal quality assurance system	Outcome	NA	10%	20%	30%	40%	50%	Admin Report	Annually	FMHACA

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
126	Inspection coverage of health products manufacturers and suppliers	output	80%	87%	95%	98%	100%	100%	Admin Report	Annually	FMHACA
127	Number of registered medicines	Output	1375	400	800	1200	1500	1100	Admin Report	Annually	FMHACA
128	Quality, safety and efficacy ensured health products available in the market	outcome	NA	-	-	95%	-	100%	Admin Report	Annually	FMHACA
129	Quality, safety and efficacy ensured of traditional medicines in the market	Outcome	0	0	0	1	3	10	Admin Report	Annually	FMHACA
130	Consignment laboratory test coverage of health products	outcome	3.4%	7%	10%	15%	20%	25%	Admin Report	Annually	FMHACA
131	Post market surveillance coverage of health products	outcome	3%	11%	20%	33%	50%	55%	Admin Report	Annually	FMHACA
132	Number of health products manufacturers and suppliers that implement internal quality assurance	Outcome	40%	40%	50%	65%	75%	85%	Admin Report	Annually	FMHACA
133	Number of licensed, ethical and competent health professionals	Outcome	46%	60%	80%	95%	100%	100%	Admin Report	Annually	FMHACA
134	Number of registered and licensed traditional medicine practitioners	Output	0	100	150	200	300	1150	Admin Report	Annually	FMHACA

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					SourcePeriodicity		Level of Data Collection
				1	2	3	4	5			
135	Inspection coverage of healthcare facilities	output	70%	75%	85%	90%	95%	100%	Admin Report	Annually	FMHACA
136	Number of healthcare facilities implementing the national healthcare facility standards	Outcome	17%	60%	75%	90%	100%	100%	Admin Report	Annually	FMHACA
137	Inspection coverage of hygiene and communicable diseases in health related facilities	Output	70%	70%	80%	95%	100%	100%	Admin Report	Annually	FMHACA
138	Percentage of capacity to prevent and control the epidemic diseases	Output	80%	80%	90%	100%	100%	100%	Admin Report	Annually	FMHACA
139	percentage of tobacco smoke free public places	Output	30%	30%	45%	60%	60%	75%	Admin Report	Annually	FMHACA
140	The percentage of substandard medicines circulating in the market.	Output	8%	8%	6%	4%	2%	1%	Admin Report	Annually	FMHACA
	P5: Improve Supply Chain and Logistics Management										
141	Availability of essential drugs by level of health care										
	Primary health care	Input	90	92	94	96	98	100	LMIS/ Special study	Annual	All Health Facilities/ PFSA
	Secondary health care	Input	90	91	92	93	94	95	LMIS/ Special study	Annual	All Health Facilities/ PFSA

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20) 1	2	3	4	5	Source	Periodicity	Level of Data Collection
Tertiary health care		Input	90	90	90	90	90	90	LMIS/ Special study	Annual	All Health Facilities/ PFSA
142	Direct delivery of pharmaceuticals to health facilities	Input	67	75	85	90	95	100	Admin Report	Annual	
143	Proportion of essential drugs procured from local manufacturers	Input	25	35	45	50	55	60	Admin Report	Annual	
144	Procurement lead time (days)	Input	240	220	200	180	160	120	Admin Report	Annual	
145	Time taken for port clearance (days)	Input	NA					<8	Admin Report	Annual	PFSA
146	Percentage of stock wasted due to expiry	Input	8	7	6	5	4	2	LMIS/	Annual Special study	All Health Facilities/ PFSA
147	Proportion of patients with adequate information on dispensed drugs	Input	68	75	85	90	95	100	Special study	2-3 years	All Health Facilities/ PFSA
	P6: Improve community participation, & engagement										
148	Proportion of households regularly engaged in Health Development Army (HDA)	Output	26					90	HMIS	Routine	Woreda Health Office
	P7: Improve Resource Mobilization										
149	Proportion of woredas with established CBHI schemes	Output	15					80	Admin Report	Annual	Health Insurance Agency

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
150	Proportion of employees enrolled in social health insurance	Output	NA	100	100	100	100	100	Admin Report	Annual	Health Insurance Agency
151	Out of Pocket Expenditure as a share of total health expenditure (THE)	Input	33.7					15	NHA	5 years	Population
152	General government expenditure on health (GGHE) as a share of total general government expenditure (GGE)	Input	6%						Admin Report	Annual	FMOH
	P8: Improve Research and Evidence for Decision Making										
153	Percent of report completeness	Output	72	80	85	90	90	90	HMIS	Routine	All Health Facilities
154	Percent of report timeliness	Output	84	80	85	90	90	90	HMIS	Routine	All Health Facilities
155	Proportion of health facilities who conducted Lots quality assurance Sampling (LQAS)	Output	36	65	75	80	85	85	Admin Report	Annual	All Health Facilities
156	Proportion of health facilities who met the data verification factor within 10% range for SBA	Output	71	75	75	80	85	85	Admin Report	Annual	All Health Facilities
157	Proportion of health institutions that met minimum information use standards/criteria (regular	Output	29	50	65	75	80	90	Special Survey	Annual	All Health Facilities

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20) 1	2	3	4	5	Source	Periodicity	Level of Data Collection
	performance review with plan Vs achievements, root cause analysis, charts/figures display, action plans, shares responsibility and track implementation of endorsed plan)										
158	Proportion of synthesized evidence-based information utilized for decision-making	Outcome	NA		100%	100%	100%	100%	Admin Report	Annual	EPHI
159	Proportion of health facilities who received integrated supportive supervision at least once per year	output	100%	100%	100%	100%	100%	100%	Admin Report	Annual	
160	Number of publications produced on peer reviewed journals	output	93*	48	52	74	80	90	Admin Report	Annual	EPHI
161	Number of technical reports produced from research and surveillance	output	48	52	74	80	90	100	Admin Report	Annual	EPHI
162	Proportion of births registered at health facilities as per the Civil Registration system of Ethiopia	Output	NA	50%	60%	70%	80%	90%	Admin Report	Annual	VERA
163	Proportion of deaths registered at the health facilities as per the Civil Registration system of Ethiopia	Output	NA	12%	17%	22%	27%	30%	Admin Report	Annual	VERA

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
	CB1: Enhance use of technology & Innovation										
164	Number of biotechnological vaccines and biological product types distributed	Output	1	1	1	3	3	3	Admin Report	Annual	EPHI
165	Number of food and traditional medicines production packages generated and distributed	Output	1	1	4	4	5	5	Admin Report	Annual	EPHI
166	Number of biotechnological vaccines and biological product types distributed (cumulative)	Output	1	1	1	3	3	3	Admin Report	Annual	EPHI
167	Number of food and traditional medicines production packages generated and distributed	Output	1	1	4	4	5	5	Admin Report	Annual	EPHI
168	Number of types of diagnostic technologies evaluated and disseminated	Output	2	10	13	12	12	13	Admin Report	Annual	EPHI
169	Proportion of types of diagnostic technologies utilized	Output	100	70	77	92	92	100	Admin Report	Annual	EPHI
170	Proportion of Health facilities implementing e-HMIS	Input	<50%	60%	70%	80%	90%	100%	Admin Report	Annual	Woreda Health Office
171	Proportion of facilities equipped with medical equipment as per the essential medical equipment list	Input	NA					80%	Admin Report	Annual	Woreda Health Office

	Indicators	Type	Baseline	Yearly Target (2015/16 – 2019/20)					Source	Periodicity	Level of Data Collection
				1	2	3	4	5			
172	Number of social innovations identified, formulated and scaled up (cumulative)	Input		1	2	3	4	5	Admin Report	Annual	FMOH
	CB2: Improve Development & Management of HRH										
173	Health workers per 1,000 I population	Input	0.84	1	1.2	1.3	1.5	1.6	Admin Report	Annual	Woreda Health Office
174	Staff attrition rate	Input	6.6	6	5.5	5	4.5	4	HMIS/ Admin Repor	Annual	All Health Facilities
	CB3: Improve health infrastructur										
175	Maintain potential Primary Health Coverage	Input	98%	98%	100%	100%	100%	100%	Special survey	2-3 years	Woreda Health Office
176	Proportion of health facilities with functional electricity, water, sanitation facilities and networking equipment	Input	<50%	65%	70%	80%	90%	100%	Admin Report	Annual	Woreda Health Office

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