ጤና ሚኒስቴር - ኢትዮጵያ
MINISTRY OF HEALTH-ETHIOPIA

ANNUAL PERFORMANCE REPORT

ምላሽ ሰጪ የጤና ስርዓት በአዲስ ምዕራፍ!
Responsive Health System in the New Beginnings!

2013 EFY (2020/2021)

ጤና ሚኒስቴር - ኢትዮጵያ
MINISTRY OF HEALTH-ETHIOPIA

ANNUAL PERFORMANCE REPORT

ምላሽ ሰጪ የጤና ስርዓት በአዲስ ምዕራፍ!
Responsive Health System in the New Beginnings!

2013 EFY (2020/2021)

CONTENTS

LIST OF TABLES

LIST OF FIGURES

FOREWORD

H.E. DR. LIA TADESSE

Minister, Ministry of Health,
Federal Democratic
Republic of Ethiopia

I am pleased to share with you the 2013 EFY performance report of the health sector of Ethiopia. It is a detailed report that shows achievements; major initiatives and activities, and challenges of the health sector in the fiscal year.

The health sector has developed the second health sector transformation plan (HSTP-II) for the period 2013 EFY-2017 EFY (2020/21-2024/25). The strategic plan has set a goal of improving the health status of the population, by accelerating progress towards Universal Health Coverage, protecting people from emergencies, progressing towards Woreda transformation, and improving health system responsiveness. This year, 2013 EFY (2020/21), marks the first year of HSTP-II, when we started our commitment towards the achievement of HSTP-II objectives and targets. This annual performance report highlights the progress made in the first year of the HSTP-II period.

As you know, 2013 EFY was a year when the health system is challenged by the continued COVID-19 pandemic and other emergencies such as conflicts resulting in many internally displaced people in different parts of the country. Despite the challenges that we have been through in the fiscal year, the sector has registered remarkable results in improving access to and utilization of health services by enhancing the implementation of essential health interventions at all levels of the health system. The report shows that utilization of maternal and child health interventions and services have improved; registered encouraging results in the prevention and control of major communicable diseases such as HIV, tuberculosis and malaria. Moreover, to address the ever-growing non-communicable diseases (NCD) in Ethiopia, we have strengthened various NCD prevention and control interventions such as improved screening, service integration, treatment and management of major NCDs. In addition, we have been successful in improving health system investments such as improving the number and mix of health workforce, improving the supply of pharmaceuticals, and health financing.

In terms of emergencies, we strengthened our responses to the COVID-19 pandemic, including the introduction and expansion of COVID-19 vaccination enhancing our emergency and critical care treatment capacity. In addition, emergency preparedness, prevention, response and recovery activities to other public health emergencies were implemented to protect vulnerable populations. Through our emergency management efforts, we have learned lessons to make our health system more resilient and accelerate progress towards universal health coverage.

In addition to the emergencies mentioned above, shortage of supplies due to global market constraint, unemployment of our workforce, inadequate basic amenities at health facilities and inadequate financing were additional hurdles for the health sector.

The results that we achieved this year are through the determination and hard work of our health workers and health leaders at all levels of the health system and the continued partnership and collaborative efforts of all stakeholders. I would like to commend all the health workers, development partners, and all the other stakeholders for your commitment towards improving the health status of the Ethiopian population.

We need to strengthen our commitment and stand in solidarity in efforts that can improve the health of our people and save thousands of lives. I call upon all stakeholders to strengthen our collaboration and partnership to a greater level, work together towards HSTP-II objectives and targets. Working together, we can achieve what we have envisioned. I believe that, together, we can and will make a difference, as an ancient Ethiopian proverb says “ድር ቢያብር አንበሳ ያስር!”.

Lia Tadesse (MD, MHA)
Minister of Health, Ethiopia

ACKNOWLEDGEMENTS

This 2013 EFY annual performance report (APR) is coordinated and prepared by a technical team organized from the Policy, Planning, Monitoring and Evaluation Directorate (PPMED). It is prepared with a continued support and commitment of experts from PPMED, experts from all directorates of MOH, agencies, Regional Health Bureaus and development partners. The PPMED would like to extend its appreciation to all those who supported the preparation of this comprehensive annual performance report.

Report writing technical team members

The following individuals are the report preparation members, reviewers and editors of this APR

Reviewers and editors of the report

- **Naod Wondrad (BSC, MHA) – Editor-in-Chief**
  - Director, PPMED, MOH
- **Shegaw Mulu (BSC, MPH, MSC)– Reviewer, Editor-in-chief and Coordinator**
  - Senior Health Information Systems and M&E advisor, PPMED, MOH
- **Wubshet Denboba (BSC, MPH) – Reviewer and Editor-in-chief**
  - Senior Health Information systems and data use specialist, PPMED, MOH

Report-writing team members

- Ayele Teyou (BSC, MPH); Consultant, MOH, PPMED
- Daniel Getachew (BSC, MPH); HIS consultant, MOH, PPMED
- Lemma Gutema (BSC, MPH); HMIS specialist, MOH, PPMED
- Meskerem Abebaw (BSC, MPH); M&E expert, MOH, PPMED
- Shegaw Mulu (BSC,MPH,MSC); Senior Health Information Systems and M&E advisor, PPMED, MOH
- Shemsedin Omer (BSC, MPH); Data use specialist, MOH, PPMED
- Solomon Kassahun (BSC, MPH); M&E expert, MOH, PPMED
- Tsedeke Mathewos (BSC, MPH); M&E technical assistant, MOH, PPMED
- Wubshet Denboba (BSC, MPH); Senior Health Information systems and data use specialist, PPMED, MOH

ACRONYMS

AA	Addis Ababa
AARHB	Addis Ababa Regional Health Bureau
AFRO	African Regional Office
AIDS	Acquired Immunodeficiency Syndrome
ALOS	Average Length of Stay
ANC	Antenatal Care
ANC4	Antenatal Care Four visits
APR	Annual Performance Report
APTS	Auditable Pharmaceutical Transaction and Service
ARM	Annual Review Meeting
ART	Antiretroviral Therapy
ARV	Antiretroviral
AVW	African Vaccination Week
BCC	Behavior Change Communication
BEmOC	Basic Emergency Obstetric Care
BFHI	Baby Friendly Hospital Initiative
BMI	Body Mass Index
BOR	Bed Occupancy Rate
BP	Blood Pressure
C/S	Caesarean Section
CAR	Contraceptive Acceptance Rate
CASH	Clean and Safe Health
CBHI	Community Based Health Insurance
CBMP	Capacity Building and Mentorship Program
CBN	Community Based Nutrition
CBNC	Community Based New Born Care
CEmOC	Comprehensive Emergency Obstetric Care
CFR	Case Fatality Rate
CHD	Community Health Day
CHIS	Community Health Information Center
CPR	Contraceptive Prevalence Rate
CRC	Compassionate Respectful and Caring
CSA	Central Statistical Agency
CVD	Cardio Vascular Disease
DALYS	Disability Adjusted Life Years
DBS	Dry Blood Sample
DHIS2	District Health Information System
DM	Diabetes Mellitus
DPs	Development Partners
DR TB	Drug resistance Tuberculosis
ECD	Early Childhood Development
eCHIS	Electronic Community Health Information System

EDHS	Ethiopia Demographic and Health Survey
EFY	Ethiopian Fiscal Year
EHAQ	Ethiopian Hospitals Alliance for Quality
EHCRIG	Ethiopian Health Center Reform Implementation Guideline
EHRIG	Ethiopian Hospital Reform Implementation Guideline
EHSTG	Ethiopian Hospital Services Transformation Guideline
ENBC	Essential New-born Care
EOS	Enhanced Outreach Strategy
EPI	Expanded Program on Immunization
EPSA	Ethiopia Pharmaceutical Supply Agency
EPTB	Extra pulmonary Tuberculosis
ETB	Ethiopian Birr
EU	European Union
FHT	Family Health team
FMHACA	Food, Medicine and Healthcare Administration and Control Authority
FMOH	Federal Ministry of Health
GMP	Growth Monitoring and Promotion
GOE	Government of Ethiopia
HAPCO	HIV/AIDS Prevention and Control Office
HCs	Health Centers
HCT	HIV Counselling and Testing
HDA	Health Development Army
HEP	Health Extension Program
HEW	Health Extension Workers
HIT	Health Information Technician
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HPV	Human Papilloma Virus
HRH	Human Resource for Health
HSTP	Health Sector Transformation System
HSTQ	Health Service Transformation in Quality
ICCM	Integrated Community Case Management
ICD	International Classification of Disease
ICMNCI	Integrated Community Case Management of New-born & Childhood Illness
ICU	Intensive Care Unit
IEC	Information, Education & Communication
IESO	Integrated Emergency Surgery &Obstetrics
IFMIS	Integrated Financial Management Information System
IMNCI	Integrated Management of Neonatal and Child Illness
IMR	Infant Mortality Rate
IR	Information Revolution
IRS	Insecticide Residual Spray
IRT	Integrated refresher Training
ISS	Integrated Supportive Supervision
IUCD	Intrauterine Contraceptive Device

JCCC	Joint Core Corrdinating Committee
JCF	Joint Consultative Forum
JSC	Joint Steering Committee
KPI	Key Performance Indicators
LEEP	Loop Electro Excision Procedure
LLINs	Long-Lasting Insecticidal Net
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring and Evaluation
MAM	Moderate Acute Malnutrition
MARPs	Most-At-Risk Population
MCH	Maternal and Child Health
MCP	Model Community Pharmacy
MDA	Mass Drug Administration
MDSR	Maternal Death Surveillance and Response
MFR	Master Facility Registry
MHM	Menstrual Hygiene Management
MMR	Maternal Mortality Ratio
MNH	Maternal & Newborn Health
MNHQoC	Maternal Newborn and child health Quality of Care
MOE	Ministry of education
MoF	Ministry of Finance and Economic Commission
MOH	Ministry Of Health
MPDSR	Maternal and Perinatal Death Surveillance and Response
MPH	Master of Public Health
MTCT	Maternal To Child Transmission
NBC	New Born Care
NCDI	Non-Communicable Diseases and Injuries
NEQAS	National External Quality Assessment Scheme
NICU	Neonatal Intensive Care Unit
NNMR	Neonatal Mortality Rate
NNP	National Nutrition Programme
NTD	Neglected Tropical Diseases
ODF	Open Defecation Free
OPD	Out Patient Department
ORS	Oral Rehydration Salt
PCR	Polymerase Chain reaction
PCV	Pneumococcal Conjugate Vaccine
PHCU	Primary Health Care Unit
PHEM	Public Health Emergency Management
PIRI	Periodic Intensified Routine Immunization
PLHIV	People Living with HIV
PMED	Pharmaceuticals and Medical Equipments Directorate
PMTCT	Prevention of Mother to Child Transmission of HIV
PNC	Post Natal Care
PPMED	Poliy, Plan, Monitoring and Evaluation Directorate

PPP	Public-Private Partnership
PTB	Pulmonary Tuberculosis
QI	Quality Improvement
RDQA	Routine Data Quality Assessment
RDT	Rapid Diagnostic Test
RHBs	Regional Health Bureau
RMNCAYH	Reproductive, Maternal, Neonatal, Child, Adolescents and Youth Health
RMNCH	Reproductive, Maternal, Neonatal and Child Health
SALTS	Saving Life through Safe Surgery
SAM	Severe Acute Malnutrition
SARA	Service Availability and Readiness Assessment
SBCC	Social and Behavior Change Communication
SDGs	Sustainable Development Goals
SLD	Second Line Drug
SNNPR	Southern Nations, Nationalities and Peoples' Region
STH	Soil Transmitted Helminthiasis
TB	Tuberculosis
TFC	Treatment Follow up centers
TICs	Treatment Initiating Centers
TOT	Training of Trainers
TVET	Technical Vocational Educational Training
TWG	Technical Working Group
U5MR	Under 5 Mortality Rate
UN	United Nation
UNFPA	United Nations Population Fund
USD	United States Dollar
UVP	Utrovaginal Prolapse
VAS	Vitamin A Supplementation
VPN	Virtual Private Network
WASH	Water, Sanitation and Hygiene
WDA	Women Development Army
WHO	World Health Organization
WoHO	Woreda Health Office

EXECUTIVE SUMMARY

This annual performance report details the performance of the health sector in 2013 EFY, the first year of the HSTP-II period. The report mainly describes the achievements of the sector by comparing performance against the targets set for 2013 EFY, and includes major initiatives, activities and challenges by program and health system investment areas. The fiscal year was a time when the health system was challenged by the continued COVID-19 pandemic and conflicts in different parts of the country resulting in high number of internally displaced people (IDPs). Despite the emergency challenges that has huge negative impacts on the health system, the health sector has achieved encouraging results in terms of improving utilization of maternal and child health services, prevention and control of communicable and non-communicable diseases, emergency management and response and other health services. However, regional disparity in service utilization was observed, which denotes designing and implementation of interventions to close the equity gap among the regions. The achievements of the health sector in the fiscal year were not without challenges. In addition to the occurrence of emergencies, other challenges and shortcomings, that includes inadequate health workforce density and mix, inadequate basic amenities at health facilities; inadequate financing; and shortage of pharmaceutical supplies. The quality of health services was also sub-optimal.

Primary health care and health extension program strengthening activities were performed in the fiscal year. The health-extension program optimization roadmap was officially launched and implementation started. Competency based training was provided to 343,832 women development army (WDAs), among which 225,155 were assessed for their competency and 204,000 were found to be competent. In order to advance community engagement mechanisms in HEP, alternative community engagement approaches were identified and pilot testing was started in the fiscal year. In the fiscal year, 526 PHCUs were reported as high performing, which is a 78% increment from the previous yea (from 298). Regarding model Woreda creation, 547 Woredas have reported their status, among which, 57 were model and 199 were medium performing. In terms of hygiene and environmental health, Ethiopia has registered significant achievement in reduction of open defecation (OD); from 92% in 2000 to 17% in 2021, and unimproved latrine coverage has increased from 8% in 2000 to 65% in 2021.

Utilization of maternal health services has shown improvement compared to the previous year. In the fiscal year, contraceptive acceptance rate was 73%, a 4 percent point increment compared to the baseline. Seventy percent of pregnant women received four or more ANC visits, 66% women delivered at health facilities and 85% received early PNC service. From ANC attendants, 97% were provided with iron and folic acid but only 72% were screened for syphilis. Still birth rate is decreased from 14 per 1000 births in 2012 EFY to 12 in 2013 EFY. Coverage of immunization services was high with 97% and 93% of under 1 infants received measles 1 and full immunization services. Regarding child health service uptake, 74.2% of under five children with diarrhea received ORS & Zinc treatment, while 60.8 % of the same age group with ARI received antibiotics. More than 11 million (86%) children aged 6-59 months received vitamin A, more than 7.7 million (82%) children aged 24-59 months received deworming service.

The health sector has recorded a remarkable improvement in prevention and control of major communicable diseases (HIV, TB and Malaria). Regarding HIV, more than 7.2 million people were tested, among which 33,988 (0.47%) new HIV positives were identified through implementation of different innovative-targeted HIV testing strategies. The performance report also shows that Ethiopia has well progressed in achieving the second and third targets of the 95-95-95 targets of HIV. The first 95 performance in 2013 EFY was 81%, while the second 95 performance was 95% and third 95 performance was 95%. Tuberculosis incidence has consistently decreased over the years, and reached to 140 cases per 100,000 population in 2020. In terms of detecting and treating TB patients, TB treatment coverage in 2013 EFY is 76%, which is higher by 5 percent points from the previous year. Regarding treatment outcome of bacteriologically confirmed TB cases, 95% successfully completed

treatment. Regarding malaria, 23 malaria cases per 1000 population at risk were reported, which is lower by five compared to the previous year. Deaths due to malaria has also decreased in the fiscal year.

The burden of non-communicable disease and mental health problems is increasing in Ethiopia. The sector has designed and implemented NCD prevention and control interventions, including awareness creation, promotion of healthy lifestyles, and integration of major NCD interventions to primary health care services. NCD screening, diagnosis, management and follow up care training, as part of the Ethiopian Primary Health Care Guideline initiative, is provided and the service is being provided in 2086 health centers and all hospitals. Integration and expansion of mental health services to primary health facilities was also done. Cervical cancer screening was done for 160,290 women aged 30-49 years.

NTD prevention and control interventions and services were strengthened in the fiscal year. TT surgery was done for more than 34,077 people with TT, more than 17.7 million people were treated with Ivermectin for the prevention of onchocerciasis; more than 3.2 million people were treated for lymphatic filariasis, more than 6.9 million people were treated for soil transmitted helminths, and 1,178 visceral and 1,389 Cutaneous Leishmaniasis patients received treatment.

The OPD attendance per capita in 2013 EFY was 1.09, a little higher than last year but far below the expected. Regarding quality improvement and assurance, the second national health care quality and safety strategy was developed, approved and its implementation started. Different quality improvement initiatives such as Maternal Newborn and child health Quality of Care initiative, Learning Health Facility initiative, Saving Lives through Safe Surgery (SaLTS) initiatives were implemented and positive results documented.

Public health infrastructure expansion has been one of the major achievements to make health services accessible to the population. At the end of 2013 EFY, 367 public hospitals, 3,777 health centers and 17,699 health posts were functional and providing services. Regarding regulation, the sector has performed regulation of health products, food, facilities and professionals. Accordingly, 79 child foods and 900 different types of food were registered and post-marketing inspections were undertaken. In addition, 779 pharmaceuticals and 2891 medical equipment licenses were issues. To strengthen evidence based decision-making, data quality and use improvement initiatives have been conducted. In addition, basic and operational researches were conducted to strengthen evidence generation and use.

Regarding the health workforce capacity of the sector, 325, 374 health workers (65% of them are health professionals) are providing health services in public health institutions at the end of the fiscal year. The health professionals to population ratio is improving over the years. At the end of 2013 EFY, the physician to population ratio was 1: 8448; nurse to population ratio was 1:1473 and midwives to population ratio was 1: 5053. The health workforce density for physicians/HOs, nurses and midwives was 1.16, which is much lower than WHO recommendation of 4.45 to achieve SDGs. Though there is an improvement in the number and mix of health workforce, it still is far below the recommended, calling for improvement in the HRH profile of the sector.

The sector has strengthened pharmaceuticals supply system through different strategies such as cyclical procurement, category management system and framework agreements. In 2013 EFY, more than ETB 17.01 Billion worth of pharmaceuticals and medical supplies were procured, an amount more than the previous years. The availability of vital and essential pharmaceuticals at national level was 85% and 83% respectively. Pharmacy services and medical equipment maintenance services were strengthened in the fiscal year. APTS is started in 107 health facilities, adding the total APTS implementing facilities to 324.

In the fiscal year, various initiatives were implemented to improve health financing. Proactive resource mobilization was conducted from national and international sources. Accordingly, 13.2% of the total government budget was allocated to health in 2013 EFY, a higher proportion than the previous years. More than 388 million USD was mobilized and disbursed from development partners. In addition, implementation of health care financing reform components were strengthened. Public-Private partnership (PPP) in health is initiated for three projects. Implementation of CBHI is strengthened, 834 Woredas have started implementing CBHI and 61% of the eligible households were members.

In 2013 EFY, the health system has been challenged with different emergencies including COVID-19 pandemic and conflicts that resulted many IDPs in various parts of the country. The health sector has collaboratively worked with stakeholders to respond to these emergencies. Regarding COVID-19, since the epidemic was started in March 2020, a total of 319,101 cases and 4830 deaths were reported by the end of August 2021. The health sector has strengthened the public health epidemic preparedness, prevention and response actions in the fight against the COVID-19 pandemic. Emergency management actions such as contact tracing, screening, laboratory testing, expansion of COVID-19 treatment sites and treatment services were some of the major actions. In addition, the sector has mobilized COVID-19 vaccines and COVID-109 vaccination is being provided to people aged 18 and above. Health emergency responses and recovery actions were provided to conflict affected areas in different parts of Ethiopia.

CHAPTER

1 INTRODUCTION

CHAPTER 1: INTRODUCTION

The health sector has developed a five-year strategic plan, the second Health Sector Transformation Plan (HSTP-II) with an overarching objective of improving the health status of the population; and with four main objectives, namely, accelerating progress towards Universal Health Coverage, protecting people from health emergencies, achieving Woreda transformation and improving health system responsiveness. HSTP-II spans for the period 2020/21 to 2024/25 (2013 EFY to 2017 EFY). This fiscal year (2013 EFY) is the first year of HSTP-II period and it is a time when the health system is affected by COVID-19 pandemic and insecurities in many areas with many internally displace people (IDPs) creating an additional challenge to the health system.

This is the annual performance report (APR) of the health sector for the 2013 EFY (2020/2021), the first year of the HSTP-II period. The report mainly include progress of the health sector in achieving the 2013 EFY annual targets, comparing the annual performance with the annual target. HSTP-II identified five priorities/ transformation agendas, including 1) quality and equity; 2) Motivated, Competent and Compassionate Health workforce (MCC); 3) information revolution; 4) leadership and 5) health financing. The status and progress of these transformation agendas are highlighted in the report.

The report details the progress of the different health programs, identifies the major challenges that impede implementation of the specific programs and recommendations/way forward for the forthcoming fiscal year. It mainly includes the following areas:

- Health service coverage (utilization of different health services) in 2013 EFY
- Comparison of the performance of 2013 EFY against the target set for the fiscal year
- Trends in performance
- Comparison of performance by region
- Status of implementation of health system investments such as health infrastructure, financing, governance and leadership, health information, pharmaceuticals
- Emergencies in the fiscal year and major responses performed
- Major initiatives and activities conducted in the fiscal year, for each program area
- Major challenges and the way forward, for each program and investment area

To prepare this performance report, various data sources were used. The main data source for the quantitative data analysis is the routine HMIS report from DHIS2. In addition, other data sources such as surveillance information system from EPHI, human resource information system, health-commodity information system, regulatory system information system, global estimates and other data sources are used. Administrative data and report from programs are also used. Due to a conflict in the northern part of Ethiopia, there were no reports from Tigray region for more than 9 months in the fiscal year. Consequently, national coverage was computed based on population denominators and performance for all regions without Tigray region. National plan versus target is discussed without Tigray region. The report of Tigray's 1st quarter performance is dealt separately under each program area. In addition, a separate section is also included for all the major emergency responses provided in Tigray region. The report includes quantitative data represented in the form of tables and graphs that represent comparisons across regions and trends over time for selected indicators.

The preparation of the report is coordinated by a technical team represented from the Policy, Planning, monitoring and Evaluation Directorate (PPMED) of MOH. It was prepared in close collaboration and consultation with directors and program experts from the different directorates and agencies of MOH were consulted during the preparation of the report.

This Annual Performance Report is divided into ten chapters:

Chapter 1 [Introduction] - is an introduction that covers the background about the preparation of the Annual Performance Report

Chapter 2 [Progress of transformation agenda of HSTP-II] - Highlights the progress and current status of the five priorities/transformation agendas of HSTP-II

Chapter 3 [Health Service Delivery] – This chapter covers the performance the different health programs of the health sector, including, health extension program/Primary health care, hygiene and environmental health; reproductive, maternal, neonatal, child and adolescent health, nutrition and Disease prevention and Control programs, clinical services and others

Chapter 4 [Leadership and governance] – deals about the major governance and leadership areas such as regulatory activities, health infrastructure, policies and strategies; and health reform and governance related activities

Chapter 5 [Human Resource for Health] – describes about human resource development and management such as the distribution and mix of health workforce

Chapter 6 [Health Information System] – covers about evidence based decision making in the health sector, use of technology and innovations and basic and operational researches

Chapter 7 [Pharmaceuticals and medical supplies] – covers about pharmaceutical supply management, medical devices and pharmacy services

Chapter 8 [Health Financing] – Covers about resource mobilization and utilization, public health budget allocation and liquidation and implementation of health insurance

Chapter 9 [Public Health Emergency preparedness and response] – deals about public health emergencies such as disease epidemics and response, and emergency responses in conflict areas

Chapter 10 [COVID-19 and its response] - This section highlights about the status of COVID-19 pandemic and its responses in Ethiopia.

CHAPTER

PROGRESS OF HSTP-II TRANSFORMATION AGENDAS

CHAPTER 2: PROGRESS OF HSTP-II TRANSFORMATION AGENDAS

2.1. Transformation in Quality and Equity

Quality and equity of health services is one of the five priorities/transformation agendas of HSTP-II. It refers to ensuring delivery of quality health care (reliable, patient-centered and efficient) to all in need in an equitable and timely manner. It is about ensuring availability of the best care to all, so that the quality of care provided does not differ by any personal characteristics including age, gender, socioeconomic status or place of residence, or disability status. It at improving both the demand and supply side of quality and equitable health services.

In 2013 EFY, various interventions and activities were implemented to achieve the objectives of this transformation agenda. The second National Health Care Quality and Safety Strategy (2021-2025) is developed and disseminated to various stakeholders. In addition, other essential documents such as the national quality-coaching guide, clinical audit tool for health centers and the revised clinical audit tool for hospitals were developed to guide the provision of quality health services. Quality improvement initiatives that were proven effective in the first HSTP have been continued in this year as well. The QI projects include the Saving Lives through Safe Surgery (SaLTs) and the Maternal and Newborn Quality of Care (MNH QoC) initiatives. National health care quality hubs are identified and financial and technical support was provided to the hubs. These hubs will serve as center of excellence for quality improvement in the health sector.

With regard to equity, the Ministry of Health has identified and designed interventions to address five types of disparities namely, geographic, demographic, socioeconomic, gender and people with special needs. Such disparities in the community not only resulted poor health outcomes but also harm the society and economy in general. Reducing health inequities is a social and moral imperative that needs an agile and responsive health system, which provides equitable access to comprehensive and quality health care. This often requires strong political commitment and multi-sectoral collaboration and interventions. In response to such disparities in service availability, utilization and outcome, health equity interventions have been implemented in the fiscal year. Health Systems Strengthening and Special Support directorate along with all the relevant stakeholders has prepared the national health equity strategy through an extensive participation and consultations of stakeholders. As equity requires contextual intervention, this strategy is being customized by all regions and city administrations. Moreover, regional level advocacy is being entertained to ensure of leadership at all level. The other vital activity started in 2013EFY was the comprehensive national health equity analysis. All the preparatory activities have been finalized and the analysis result will be released in the 2014 fiscal year. The Health System Strengthening Monitoring and Evaluation guideline has also been developed with the aim of strengthening and ensuring system level follow up and use of trustable data for evidence-based decision-making. In the fiscal year, technical and financial support was provide to regions and zones that require special support. In addition, capacity building trainings were conducted to these regions and zones.

2.2. Information revolution

Information revolution (IR), which was introduced during HSTP-I implementation period, remains one of the transformation agenda in HSTP II. The overall goal of the IR is to improve the capability of the health system to generate and use high-quality data for evidence-based decision-making and advance towards better health systems performance. It is not only about changing the techniques of data and information management; rather it is also about bringing fundamental cultural and attitudinal change regarding perceived value and practical use of information. During HSTP-II, efforts will focus on the three pillars of the information revolution:

transforming a culture of high-quality data use; digitization of the health information system (HIS); and improving HIS governance. The major accomplishment of 2013 fiscal years is described below (for further detail refer the section on health information system).

Transforming a culture of data use

To improve data recording and availability, routine HMIS indicators and data recording tools were revised to respond to additional data requirements. Similarly rapid assessment on morbidity and mortality data recording was conducted to inform the revision process of existing national classification of disease (NCoD). Capacity building training on data quality, data use and DHIS2 was given for health workers working at all level of health system. Furthermore, monthly and quarterly data analytics which was initiated during the 2012 EFY was institutionalized.

Assessing the status of HIS structure and resources, data quality, and data use domains using the

IR model Woreda measurement tool, which has been used at few woreda before 2013 EFY, is institutionalized and scaled-up. In 2012 EFY, only 255 sites (38 WoHOs, 181 HCs, and 36 hospitals) were conducting self-assessment using the IR measurement tool. In 2013 EFY, it was scaled up to 1,503 sites (208 WoHOs, 862 HCs, 88 hospitals, and 345 health posts).

An interactive dashboard was developed to track and monitor IR implementation status of connected *Woredas* across regions regarding HIS structure and resource, data quality, information use indicators, and facilities' IR pathway (categorizing facilities as Model, Candidate, and Emerging based on the three indicators).This dashboard is updated regularly every six months following IR woreda assessment result. In January 2021, the assessment result of 1364 health facilities was obtained and 14%(197) of the sites were reported to have reached IR model status while out of 770 self-assessed result in June 2021, 33% (253) are reported model.

The average HIS structure and resources score measured out of a score of 30 increased from 15.4 (self-assessment result from 250 sites in 2018) to 24.5 (self-assessment result from 700 sites), recording about a nine-point change. Similarly, the average scores for data quality out of a score of 30 and information use out of a score of 40 also increased from 14.4 and 18.5 in 2018 to 26.4 and 30 in June 2021, respectively. In both cases, the average change is greater than ten points. In general, the overall IR score out of 100 score, increased from 48.3 in 2018 to 80.8 in June 2021. To date four woreda are verified to reach IR model status.

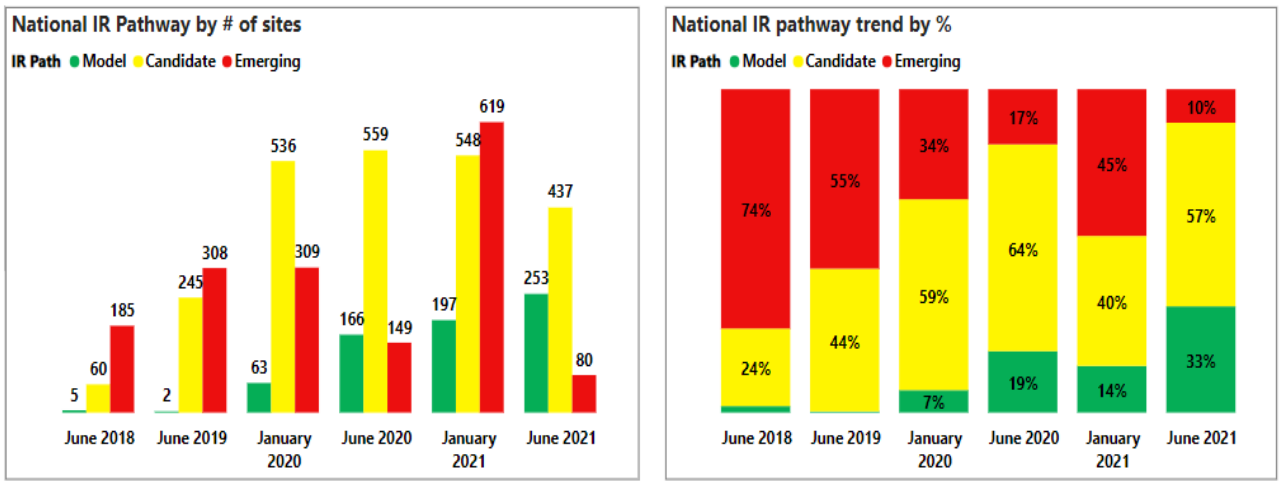


Figure 1. IR assessment status by period of assessment, June 2021

Digitization

Lack of standards to guide the development of electronic medical recording systems was one of the challenges in HSTP-I implementation period. Cognizant of this, standards for electronic health recording system was developed to set standards for the development and implementation of an EHR system in the country that will streamline the standardized health data collection, transmission, analysis and use for clinical and public health decision making. The development of digital health blue print, which certainly goes beyond IR agenda, can be considered as an opportunity in facilitating this agenda implementation. Electronic community based information system (eCHIS) implementation was scaled up from four region to eight and the number of health posts implementing it was also increased from 1,193 of 2012 baseline to 6,320. To date, more than 2.8 million households and more than 12 million family members were registered in the HPs that started implementing eCHIS.

HIS governance

HIS governance is considered as a foundation for IR agenda implementation. In this reporting period HIS governance framework was revised by including national advisory group (NAG) as the HIS governance structure; merging of the various types of related, but redundant TWGs into three groups, revising the frequency of meetings of the HIS steering committee, NAG, and HIS Governance TWG; and clearly defining the relationship of national and regional HIS structure. By the end of 2013 EFY 7 out of 12 region have customized the HIS framework to their regional context. Furthermore, the five year national HIS strategic plan (2020/21-2024/25) is developed to improve evidence-based decision-making.

2.3. Motivated, Competent and Compassionate (MCC) Health Workforce

Transformation in Health Workforce is among the key priority area of HSTP II, directed towards ensuring the availability of adequate number and mix of quality health workforce that are Motivated, Competent and Compassionate (MCC) to provide quality health service. Adequate number and mix of quality health workforce is a critical element of a health system. To achieve holistic health system compassion at all levels, a concerted and parallel effort is required to increase the motivation and competency of all players, including leadership, health care professionals, and support staff, by strengthening existing strategies and implementing new policies, regulations, and practices.

To ensure the presence of MCC and committed health professionals in the health system, a national Motivated, Competent and Compassionate Health Services Implementation Strategy (2020/21-2024/25) was developed. In the strategic plan, a new theory of change was developed by incorporating best experiences from previous initiatives as input and initiated a new direction towards strengthen health workforce and health systems for compassionate health service. Additionally, MCC implementation manual was developed and put into effect. Guidelines on Ethical Health Service, MCC-Model health institutions, passion/attribute based student selection and health- sector volunteerism implementation were developed and put in place.

To enhance the implementation of MCC, implementation researches in 6 thematic areas were conducted in collaboration with development partners. A baseline assessment was also conducted on MCC and Ethical health care practices, through intensive consultation with key stakeholders. Moreover, Human Resource Management related Laws, directives and guidelines are compiled into a document of 700 pages, which is organized into 256 volumes to make it suitable for use.

Regarding strengthening the quality of professional standards and curriculum development, several activities were executed at different levels, some of which as follows:

- Enabled health facilities to create conducive environment for practical training in medical and health sciences education
- Introduced innovative and technological products to medical and health science students
- Coordinated the enrollment of medical specialization program
- Facilitated long-term educational opportunities for the Ministry of health staff
- Prepared guideline on health education quality assurance
- Coordinated the enrolment of trainees for field epidemiology training program,
- Developed and followed up the implementation of field epidemiology training program quality assurance monitoring guide
- Prepared Clinical Practice Guideline for medical and health science students
- Developed 8 qualification standards for degree programs and 16 occupational standards for TVET programs
- Developed Draft scope of practice for 126 health professionals
- Developed and put in place Continuous Professional Development (CPD) platforms all over the nation

With active involvement of about 302 volunteers across the country, it was also possible to provide a variety of voluntary services to more than 1, 393, 084 patients in hospitals and health centers. In addition, volunteers were actively engaged in establishing surgical services in health facilities through renovation and capacity-building activities in 5 federal hospitals and selected health centers from 11 regions. Currently, voluntary services are being implemented in all regions in collaboration with health professional association consortium and Addis Ababa youth and volunteer service coordinating office. These compassionate-sparking activities will inspire health system leaders and health workforce to have a sympathetic attitude toward clients, which will be further expanded across all health-care facilities.

As part of coordinating relevant stakeholders for MCC, a series of consultations and discussions were held with relevant stakeholders and inputs were gathered to establish Health Professionals Council. A draft proclamation for the Council of Health Professionals was also prepared through coordinating various forums where key stakeholders including Attorney General participated.

2.4. Transformation in Health Financing

Health financing is one of the five priorities/transformation agendas of HSTP-II, with the objective of mobilizing sufficient and sustainable health financing to health and improving efficiency by reforming the financing and management system of the health system. It aims to address finance-related barriers to health service utilization through major interventions such as proactively mobilizing adequate resources from domestic and international sources, reforming resource allocation & prioritization, optimizing the health insurance system, forming public-private partnership, reforming cost recovery mechanisms, implementing performance-based financing, and designing and implementing strategies for efficient use of resources and capacities.

In 2013 EFY, the health sector has implemented various health financing interventions and encouraging achievements were documented. Resource was mobilized proactively both from national and international sources. In the fiscal year, 13.2% of the total government budget was allocated to health. This is an increment by 1.2% from the previous year, and the highest proportion in the past five years. More than 388.25 million USD was mobilized and disbursed from development partners (DPs) in 2013 EFY, a little more than the previous year's disbursed amount. A proactive resource mobilization (both in cash and in kind) was also conducted for COVID-19 pandemic response. In this regard, more than 411.6 Million USD was mobilized from the government, development partners, civil society organizations, and from the private sector.

Health care reform implementation was strengthened in the fiscal year, with more than 96% of health centers and 99% of public hospitals implementing the reform components. Exempted health service and fee waiver system are implemented at public health facilities to ensure equity of health services and enable the poor to access health services without financial hardship. Outsourcing of non-clinical health services have been implemented in 135 hospitals. In order to make user fees to reflect the cost of delivering health services, fee setting and revision exercise is started in some regions. User fee for federal hospitals and university hospitals was set and endorsed by the council of Ministers.

Public-private partnership (PPP) implementation was initiated to improve engagement of the private sector with the public health sector. PPP feasibility study was done for two projects; medical Gas Plant Placement and Diagnostic services (laboratory, Pathology, and Imaging services). In addition, a pre-feasibility study on oncology service was conducted. The PPP projects are registers and are on follow up for full approval and implementation.

Community based health insurance (CBHI) implementation is one of the health financing strategies that have been conducted in the health sector for the past few years. In this year, CBHI implementation was strengthened and expanded to cover more than 834 Woredas throughout Ethiopia (All regions except Tigray). About 61% of eligible households in CBHI implementing Woredas become members of CBHI, this is a 12% increment from the previous year. More than 2.02 billion ETB was collected from paying CBHI members. For indigent CBHI members, more than 137.5 ETB was paid by the government. The sector has planned to initiate implementation of social health insurance system for the formal sector employees in the next fiscal year.

2.5. Transformation in Leadership

Leadership is a crucial pillar of a health system and exerts direct influence on the performance of the health system. In HSTP-II, Transformation in leadership is identified as one of the top priorities of the health sector. It is about enhancing the leadership and governance system at all levels of the health system to drive attainment of the strategic objectives set in HSTP-II. The agenda aims to implement different initiatives and major interventions to transform the leadership and governance system of the health system, including redesigning & restructuring the health system, institutionalizing accountability mechanisms, strengthening clinical governance, ensuring regulatory system, strengthening stakeholder engagement and partnership, building leadership capacity at all levels, and incorporating the Health in All Policies approach throughout the government. In 2013 EFY, the health sector has achieved various results in terms of improving the governance ad leadership system of the health system.

Health policy: The revision of the health policy of Ethiopia, which was initiated some years back, was finalized in 2013 EFY and submitted to council of Ministers for approval after comments were incorporated from the General Attorney. During the revision, a series of consultative meetings were held with different stakeholders such as RHBs, house of peoples' representatives (HPN), different sectors, academia, civil society organizations (CSOs), development partners (DPs), and with the public at large. Feedbacks from the consultative meetings were used to enrich and finalize the health policy.

Strategic plans: The health sector has developed; approved and disseminated ten years strategic plan that shows the sector's directions, priorities and targets for the next 10 years. In addition, a five years Health sector Transformation plan (HSTP-II), for the period 2020/21-2024/25, was finalized, approved and disseminated. The leadership led the development process, with extensive consultations with various stakeholders. Following the development of HSTP-II, different sub-strategies for the different programs of the health sector were developed and approved by the senior leadership of the sector.

Health legislation: A draft Health Act is developed, in consultation with various stakeholders. The draft Health Act was submitted to General Attorney, from which feedback were received and used for document enrichment. The Health Act will be submitted to council of Ministers for approval.

Advocacy: The leadership has conducted various advocacy activities to mobilize resources for the health sector, to create awareness on HSTP-II to different national and international stakeholders and to improve partnership between MOH and stakeholders.

Harmonization and Alignment: In order to improve the health sector's planning, budgeting and implementation of HSTP-II, revision of health harmonization and alignment manual (HHM) was finalized in the fiscal year. It was endorsed by the MOH-donor committee (Joint Consultative forum /JCF) and approved. The document will be indispensable to improve planning, budgeting, systematic implementation and coordination in the health sector.

Governance platforms and coordination: In 2013 EFY, the senior management of MOH and RHB heads have conducted regular meetings to review the performance of HSTP-II implementation. In the fiscal year, additional frequent forums were conducted through virtual meetings in order to discuss, follow and set directions for COVID-19 response.

In the fiscal year, coordination mechanism between MOH and development partners was strengthened through regular, uninterrupted Joint Core Coordinating Committee (JCCC) meetings with health-population-nutrition (HPN) partners. During the JCCC meetings, important health sector priorities and issues were discussed and action points were jointly identified and implemented.

Leadership Capacity Building: In order to build the capacity of the health sector's leaders, a leadership incubation program (LIP) is designed and potential future leaders are selected and trainings are being provided. In 2013 EFY, 33 health sector leaders are selected for the LIP and started the training program. In addition, the senior management of MOH were trained on different leadership technical trainings.

International engagement: Ethiopia has participated in the 73rd World Health Assembly (WHA), during which Ethiopia has transmitted messages that are valuable to the health system of Ethiopia. In addition, Ethiopia has developed a resolution on local manufacturing of pharmaceuticals and it was endorsed by the WHA. Ethiopian health sector leaders were also engaged in different WHO-AFRO meetings, during which Ethiopia reflected its country priorities. Ethiopia has also shared its experiences for delegates from different countries such as Burkina Faso, Central African Republic, during which the leadership shared best practices for the African counterparts.

CHAPTER

HEALTH SERVICE DELIVERY

3.1. Health Extension Program and Primary Health Care

Ethiopia has achieved substantial progress in improving health outcomes during the past two decades. These achievements were mainly realized after the expansion of primary health care services to households and communities through the implementation of the Health Extension Program (HEP). The program was launched in 2003 (1997 EFY) in agrarian regions and was later tailored to the pastoral and agro-pastoral contexts in 2006 and to urban areas in 2009. This section of the report covers the accomplishments related to health extension program, health education and promotion, implementation of different reforms to strengthen the provision of primary health care service and accomplishment related with Woreda transformation.

Community Engagement: Competency Based Training

The Ethiopian health sector has registered a tremendous achievement since the launching of the HEP. The health extension workers have been using women development army (WDA) as a platform to engage with the community members. The introduction of WDA facilitates the scaling up of best practices in implementing the Health Extension Program (HEP) to all households, mainly through organized women. A Competency Based Training (CBT), that was designed and implemented through an organized and tailored practical training approach, with some theoretical courses build the capacity of WDA leaders' knowledge and skills to make them model and serve as a change agents to play pivotal role in influencing their family, network members and their neighbors at large. In 2013 EFY, 343,832 WDAs completed their CBT and among these 225,155 were assessed for their competency and 204,000 were found to be competent.

Community Engagement Options Pilot

The MOH envisioned advancing community engagement through designing and implementing alternative community engagement approaches to achieve universal health coverage (UHC). In 2013 EFY the ministry has designed inclusive community engagement approaches. These include, *optimizing the existing WDA platform, Men Development ARM (MDA), youth engagement, other social structures and re-inventing community engagement strategy through producing village health leaders (VHLs)*, to realize meaningful community engagement. Motivation mechanisms are also included as one intervention to encourage and motivate individuals and teams engaged in this endeavor.

So far, to test it in small scale, four woredas (Ada'a from East Shoa Zone of Oromia Region, Dembecha from West Gojjam Zone of Amhara Region and Damote Woyede and Hulbareg from SNNP Region) were selected as pilot sites. A series of national, regional and Woreda level consultative workshops were organized; implementation manual was developed and 255 selected VHLs from the four aforementioned Woreda have received capacity building training. Following the training, regular follow up visits, performance review meetings and experience sharing sessions have been conducted.

Health Extension Program Optimization (HEPO)

During the last two years of the previous HSTP-I implementation period, MOH has undertaken multiple activities aimed at optimizing HEP and finally developed a new 15 years (2020-2035) roadmap to guide Ethiopia's efforts to optimize the HEP. The overall goal of the HEP optimization roadmap is to accelerate the realization of UHC through which all Ethiopians will have access to needed health services, including prevention, promotion, treatment, rehabilitation and palliative care. In 2013 the following key milestone were accomplished.

Nationally, the roadmap was officially launched on March 3, 2021 by H. E. Demeke Mekonnen (deputy Prime minister) in the presence of high-level government officials, including Ministers, Presidents of Regional States, heads of Regional Health Bureau; directors of MoH and allied Agencies; representatives of donors and implementing partners; Ambassadors of selected countries and professionals from several media outlets. Likewise, Regional level launching workshop was also organized at Gambella, Sidama and Somali in the presence of respective regional presidents and key partners. At Oromia Region, a one-day orientation was provided to the senior management team of the RHB followed by a series of cascade training for zonal structures were conducted.

According to HEPO road map, health posts (HPs) are classified into three based on their relative distance from the supervising health center (HC) or primary hospital (PH). HPs that are located in kebeles where there is a HC or PH will be merged with the HC or PH and become a unit in the facility. Those within a reasonably short distance (one-hour distance) from a HC or PH will continue providing basic packages. Those located in kebeles far from HC (longer than one-hour distance) will provide comprehensive HEP packages. HPs mapping was done using geo spatial data from CSA and different previous assessments data sources to inform the suggested restructuring process. A total of 17,600 health posts and health centers with attribute data were reconciled from different secondary data sources and distance analysis of 9,455 HPs is completed. The result of the mapping showed that the average distance is 11.9km and average travel time on foot is 2.3hours. As depicted in table below there is a wide variation across regions.

Table 1. Distance of Health Posts from supervising Health centers, 2013 EFY

Regions	Travel time (on foot (in hours)										
	<= 0.5 hour		0.5-1 hour		1-1.5 hour		1.5-2 hour		> 2 hour		
	No.	%	No.	%	No.	%	No.	%	No.	%	Total
Tigray	83	21.3	34	8.7	64	16.5	50	12.9	158	40.6	389
Afar	5	3.3	13	8.6	14	9.3	11	7.3	108	71.5	151
Amhara	407	23.1	230	13.0	282	16.0	224	12.7	623	35.3	1766
Oromia	651	16.9	671	17.4	718	18.6	572	14.8	1245	32.3	3857
BG	39	17.6	23	10.4	29	13.1	21	9.5	110	49.6	222
Gambella	11	20.4	4	7.4	7	13.0	3	5.6	29	53.7	54
Sidama	103	27.8	105	28.4	63	17.0	38	10.3	61	16.5	370
SNNPR	371	19.7	485	25.8	410	21.8	220	11.7	393	20.9	1879
Somali	11	1.4	26	3.4	55	7.2	52	6.8	623	81.2	767
Total/Average	1,681	17.8	1,591	16.8	1,642	17.4	1,191	12.6	3,350	35.4	9,455

Health Education and Health Promotion

Health education and promotion is considered as a part of primary health care ever since 1978 Alma Ata Declaration. In the previous fiscal year (2012 EFY), a total of 1026 health workers from 474 health facilities were trained on facility based health education manual. As a continuation of this initiative in 2013 EFY, additional 816 health-workers from 351 health facilities have received a similar training. Currently 728 health facilities have started implementing facility based health education implementation manual.

Emerging global pandemics and frequent public health emergencies such as COVID-19, malaria resurgence, zoonotic diseases and increasing burden of NCD and the HEPO road map, which calls for revision of social and behavioral communication strategy, necessitate shifts in strategic approaches of health promotion. Accordingly, the National Health Promotion strategy (NHPS 2021-2025) was developed in participatory approach to respond to the MOH policy framework.

Now a day, digital platforms are increasingly being used to disseminate and exchange health information for the public. In order to increase accessibility and ensure the equity issues, the family health guide mobile application was developed for people who live in cities and own smartphones. To ensure this app utilization a text message has been prepared and sent to all mobile users through Ethio-telecom. An animated spot has been developed with the collaboration of volunteers, TV and radio spot message transmitted and a message was also disseminated through MOH's website.

To strengthen risk communication and community engagement (RCCE), technical support on how to develop key message on COVID-19 was given to Somali, Amhara, Benishangul and Tigray regions. Social mobilization activities were done to 2,582 various religious leaders in six regions. Furthermore, RCCE training was given for 670 HEWs and key message developed and transmitted on cholera vaccine campaign for Tigray region.

Primary Health Care Related Reform

To strengthen health service delivery at primary health care level, MOH has been implementing a number of initiatives such as designing and implementation of Ethiopian health-center reform implementation guideline (EHCRIG), primary health care clinical guideline implementation and redefining primary health care delivery in urban context. Major accomplishments in 2013 EFY are described as below.

The implementation status of Ethiopian Health center Reform Implementation Guideline (EHCRIG) is monitored through DHIS2 on a quarterly basis. The report completeness was improved from 76% in quarter IV of 2012 EFY to 78% in 2013 EFY of the corresponding quarter. Similarly, timeliness was improved from 43% to 61% during same reporting period.

The analysis of EHCRIG quarter IV performance by chapters reveals that performance monitoring and quality improvement, leadership and governance, medical record and health center - health post linkage are 83.3%, 82.6% 80.6% and 80.3% respectively. Patient flow performance (53.4%) is the lowest of all while medical equipment management and laboratory service chapters performance are also low compared with other chapters. Overall, there is an improvement from last year's same period performance.

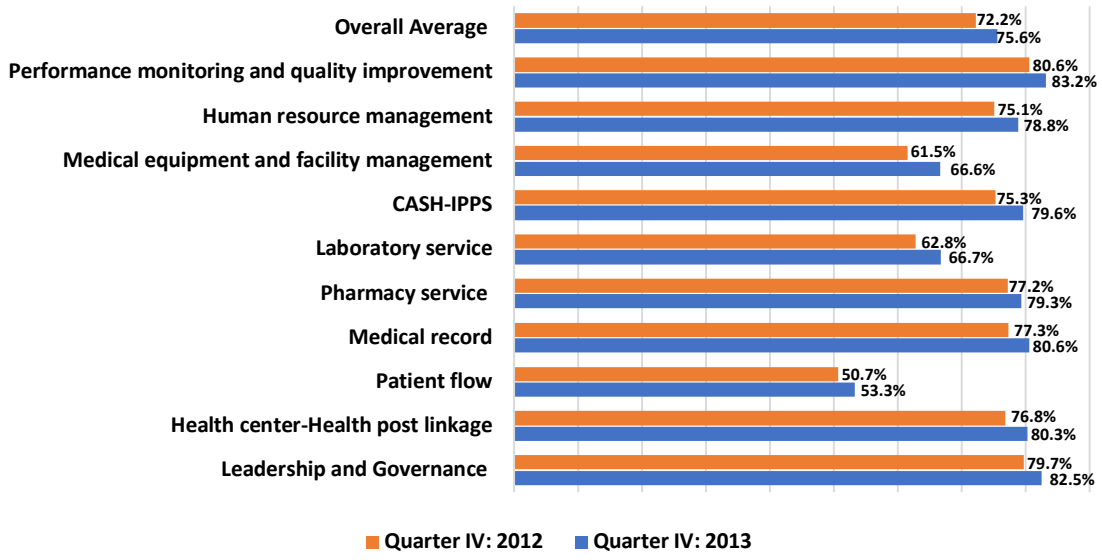


Figure 2. Comparison of Quarter IV EHCRIG performance by Chapter: 2012 EFY Vs 2013 EFY

Generally, the major challenge in ensuring proper implementation and reporting of the EHCRIG are weak follow-up, suboptimal technical support and verification of reports at every level. Considering the ever-changing environment, the current guideline is revised and its chapter is increased to 13. Training on the new guideline is expected to be conducted in 2014 EFY.

A primary health care unit (PHCU) is considered as high performing when the composite index of model kebele performance, EHCRIG performance and key performance indicators (KPI) performance average score is greater than 85%. Except Tigray and Addis Ababa, the PHCU report status were reported by all region with varied report rate across region as stated in the below table. In the current fiscal year, the total number of high performing PHCU are 526 which shows an increment by about 77% from 298 of 2012 EFY . Overall, of the 2,468 health centers that reported their status, 21% have reached high performing PHCU status.

Table 2. Number of High Performing PHCU by Region, 2013 EFY

Region	No. of health centers that reported their status	High Performing PHCUs	
		Number	%
Afar	30	4	13%
Amhara	846	184	22%
BG	23	10	43%
DD	12	0	0%
Gambela	6	0	0%
Harari	8	3	38%
Oromia	856	162	19%
Sidama	134	41	31%
SNNP	524	122	23%
Somali	29	0	0%
Total	**2,468**	**526**	**21%**

Ethiopian Primary health care clinical guideline (EPHCG), an integrated symptom-based algorithmic approach to address the common presenting symptoms and priority chronic conditions in the country, is a standard tool to be utilized at the health centre level. Its implementation is believed to contribute in ensuring equitable access to quality of care. In 2013 EFY a total number of 1,482 health centers were successfully trained and started its implementation increasing the cumulative number of health center implementing EPHCG to 2,054 (about 55% of total health centers in the country). To enhance its accessibility and for easy facilitation of periodic update interactive android application was developed and made it available on the play store.

The urban primary health care reform (UPHCR) was introduced during the HSTP-I period to address the Ethiopian urban population health need. In 2013 EFY, MOH planned to further expand the reform implementation to 131 health centers found in 72 towns. Financial and technical support was provided to regions on implementation of the plan. In 2013 EFY, the number of health centers implementing UPHCR are increased from 145 to 271 and currently 99 towns are implementing this reform. From the service provision side, 213,468 households and 653 schools were visited and 739,314 clients had received the service from family health team.

Woreda Transformation

Woreda transformation is one of the overarching objectives of HSTP-II. It is an aspiration to see transformed Ethiopia at each Woreda. It promotes transforming all households from the level they are now to the next socially acceptable level in a manner that does not slide back. It is also a means to cascade SDG to sub national level so that no one is left behind by tailoring/customizing national programs to local context and creating

ample space for local wisdom and ownership. Two approaches were outlined for its implementation: sector specific and multi-sectoral woreda transformation.

In EFY 2013, MOH has planned to ensure the 25 model woreda reported in EFY 2012 remain model, create additional 15 model Woredas and work to bring 110 Woreda to medium performance. Various activities such as capacity building training, supportive supervision and financial support to RHB and regular monitoring including verification were accomplished to realize this plan. Out of the 547 Woredas that reported their status this year, 57 (10.4%) are model, 199 (32%) medium and the remaining 291 are either low or very low performer. Of the 57 woredas reported as model, 22 were from the SNNPR, 22 from Amhara, and 13 are from Oromia. However verification carried out by the ZHD, RHBs and MoH at 23 self-reported model Woredas, reveals that 21 were found to be model while the rest performance were below 85%.

The implementation of the multi-sectoral Woreda transformation agenda that was launched in Gumbichu Woreda has been reactivated. Multi-sectoral plan was developed by the technical working group and MOH has undertaken advocacy workshop, capacity building training, documented baseline and supported implementation of eCHIS. Other sectors were involved in the multi-sectoral Woreda transformation and the major accomplishments are as follows.

- **Ministry of Labor and Social Affairs (MoLSA)**: recruited and deployed integrated social workers for all kebeles (37)
- **Water & electricity**: CIFF private philanthropy has entered into a three-year project agreement with MoWIE, MoE & MoH.
- **Ministry of Agriculture (MoA)**: MoA has delivered a multipurpose tractor/machine with accessories, and Agricultural Management Information System (AGMIS) designed and training was provided to agriculture development agents and experts drawn from Gimbichu Woreda and East Shewa Zone Agriculture Office. Furthermore, 68 tablets were provided to the kebeles (2 tablets per kebele).
- **Transport**: construction of Bishoftu–Chefe Donsa–Sendafa 55 Km asphalt road (project amount Birr 915.00 million) is in progress (17%) in two directions.

Challenges (HEP and PHC program)

- Health education and promotion structure not addressed at all level
- Weak sectoral and multi-sectoral collaborations and coordination
- High attrition and turnover of staff and leaderships
- Delay of SDG budget release

Way forward

- Increasing the coverage of implementing facility based health education
- Increase the coverage of second generation HEP implementation
- Consolidate and align multiple health centers reform initiatives
- Work toward fulfilling the basic amenities and required medical equipment to health centers
- Advocate for the implementation of national health promotion strategy

3.2. Hygiene and Environmental Health

Hygiene and environmental health focuses on impacting environmental determinants of health and thereby promoting health, preventing diseases and other conditions and improving quality of health services. It encompasses implementation of multi-dimensional interventions to ensure adequate and safe sanitation;

personal hygiene; water safety and quality; food hygiene and safety; indoor air quality; healthy living environment; occupational health safety; and liquid and solid waste management. It also includes contributing to building climate-resilient health system and water, sanitation and hygiene (WaSH) in institutions including health care facilities and emergencies situation that requires concerted efforts of various sectors. In this section, the major hygiene and environmental health activities and achievements in 2013 EFY are described.

Basic Sanitation Services

Ethiopia has registered significant achievement in reduction of open defecation (OD). According to joint monitoring program (JMP), open defecation has been reduced from 92% in 2000 to 17% in 2021, and unimproved latrine coverage has increased from 8% in 2000 to 65% in 2021. On the other hand, the coverage of basic latrine increased slowly from zero in 2008 to 18 % in 2021.

One of the key initiatives, which have been implemented towards improving the sanitation status was strengthening of market based sanitation at Woreda level. In 2013 EFY, 191 new sanitation marketing centers have been established through by providing financial and technical support to Woredas. In parallel to this, 194,555 household constructed/upgraded their latrines to improved standard through intensive community mobilization and demand creation activities at the community level. Additionally, 573 kebeles become Open Defication Free (ODF) through intensive community mobilization conducted at kebele level.

In the fiscal year, preparatory activities for the TSEDU Ethiopia (ፅዱ ኢትዮጵያ) five years campaign have been done including development of logo/brand, program implementation guide, SBCC strategy, advocacy guide, capacity gap assessment, sanitation infrastructure catalog and monitoring and evaluation.

Water and food safety

In 2013 EFY, experts from 52 woredas have been trained on water quality monitoring and surveillance. The woredas have been supported financially for establishing strong and regular water quality monitoring and surveillance system. Regarding food hygiene, an assessment of the school feeding program was conducted in 15 schools from Oromia, Amhara and Addis Ababa and feedback was provided for improvement.

Hygiene

Hand Hygiene: A one-month mobilization has been carried out on hand hygiene in all regions through which wide range of advocacy and promotion interventions. Promotion was carried out at different levels through Mainstream Medias, print Medias, social Medias, audio visuals and so on. In addition to the one-month campaign, key messages on hand hygiene have been continuously broadcasted on social and mass media.

Menstrual Hygiene Management (MHM): Advocacy has been done both at federal and regional level for better investment and action on Menstrual hygiene management. Additionally, experts from all regions have been trained on MHM for improved implementation. Moreover, 40,000 soaps; 60,200 sanitary pads, and 10,000 under wears were distributed to school-girls.

Institutional WASH and Environmental Health

Institutional WASH and environmental health is one of the key intervention areas for infection prevention and control, and ensuring safe facilities. In the fiscal year, 110 (82 new and 32 rehabilitation) water points, 314 (253 new and 61 rehabilitation) improved latrine, 197 incinerators and 124 placenta pit were constructed at health centers and health posts.

A national Health Care WASH guideline and health care waste management manual have been developed. Moreover, an assessment has been conducted in 20 religious institutions, in three industry parks and six federal prisons to identify and jointly address environmental health gaps.

Reducing the impact of Climate Change on public health

Emergency WASH and Environmental Health Guideline, Climate Resilient Health System toolkit, air quality and Health Guideline, and Health Impact Assessment Guideline have been developed and familiarized to regional health bureaus staffs, sector offices and other partners. Key messages on air pollution and health have been produced and broadcasted on Mass Medias to improve public awareness.

Challenges

- Gaps in affordability of sanitation services by the population
- Shortages of test kits for performing water quality test
- Inadequate WASH interventions in health care facilities and limited partner's engagement.
- Gaps in WASH services in institutions and public areas
- Lack of dedicated government budget for sanitation and hygiene programs
- Absence of monitoring platform for environmental health programs
- Absence of strong sector coordination platform for environmental health with accountability framework

Way forward

- Establish different financing mechanism for sanitation and hygiene to ensure provision of the services to all
- Ensure availability of water quality monitoring test kits in all Woredas
- Consider WASH in health care facilities through government and donors funding as a short-term strategy and ensure inclusion of WASH services in design and construction of new health facilities
- Strong regulation of WASH services in institutions as part of licensing and re-licensing process.
- Advocate for government funding for sanitation and hygiene programs.
- Advocate towards establishment of a high-level sector coordination platform for environmental health with accountability framework.
- Establish monitoring platform for hygiene and environmental health program

3.3. Reproductive and Maternal Health and Services

In the second health sector transformation plan (HSTP-II), improving the health status of women, neonates, children and young people is prioritized to be one of the sub-strategic directions under the strategic direction "Enhance provision of equitable and quality comprehensive health services".

Under this section, the 2013 EFY annual performance of major reproductive and maternal health indicators are discussed mainly by comparing with baseline and target of the fiscal year, and when appropriate, data disaggregated by age and geography is presented. Moreover, major activities accomplished in the fiscal year, the major challenges faced and the way forward are discussed for each program area.

The following table summarizes the performance of selected key reproductive and maternal health indicators. The performance of each indicator in this fiscal year will be discussed individually then after.

Table 3. Summary of the Performance of maternal health indicators, 2013 EFY

Indicator	Baseline	Performance in 2013 EFY
Contraceptive acceptance rate	69%	73%
Antenatal care 4+ coverage	69%	70%
Percentage of deliveries attended by skilled health personnel	63%	66%
Early postnatal care coverage	83%	85%
Cesarean section rate as a proportion of all births	4.3%	4.6%
Percentage of pregnant women counseled and tested for PMTCT	84%	90%
Percentage of pregnant and lactating women who received ART to prevent mother to child transmission of HIV	84%	79%

Contraceptive Acceptance Rate (CAR)

Ministry of Health, through its national standards for improving quality of family planning services guide, has renewed its focus on family planning service quality, the provision of quality family planning services that can increase uptake, and continuation of contraception as part of this family planning program. This National Guidelines is intended to provide explicit directives on the minimum acceptable levels of performance and expectations for service delivery and program implementation in Ethiopia. The National standards for improving quality of family planning services embraced 12 standards. In addition, family planning service integration guideline was prepared which informed implementation issues encompassing family planning (FP) service integration in HIV/ART, PMTCT, ANC, Labor and delivery, PNC, EPI, child health care and adult OPD areas. It also outlines the importance of linkage of other reproductive health (RH) services for clients coming for FP service in general.

During the current fiscal year, 14,008,577 (73%) women in the reproductive age group have received a modern contraceptive method. Compared with last year's performance, it has showed a 4% point increase. However, it is 9% less than the target set for the fiscal year.

Looking the data disaggregated by region; the highest CAR performance was observed in Sidama (90%) followed by Oromia (86%) and Amhara (83%) while the lowest performance was recorded in Somali (11%) and Afar (22%). Two regions, namely Somali and Benishangul Gumuz, performed below their last year's performance while the remaining regions performed better than their baseline. The highest increment was in Harari (11%) followed by Addis Ababa (by 9%). All regions are unable to achieve their target set for the year and seven regions have a target to performance difference of 10% or more. The biggest gap is observed in Dire Dawa (36%) followed by Benishangul Gumuz (31%) and Afar (28%).

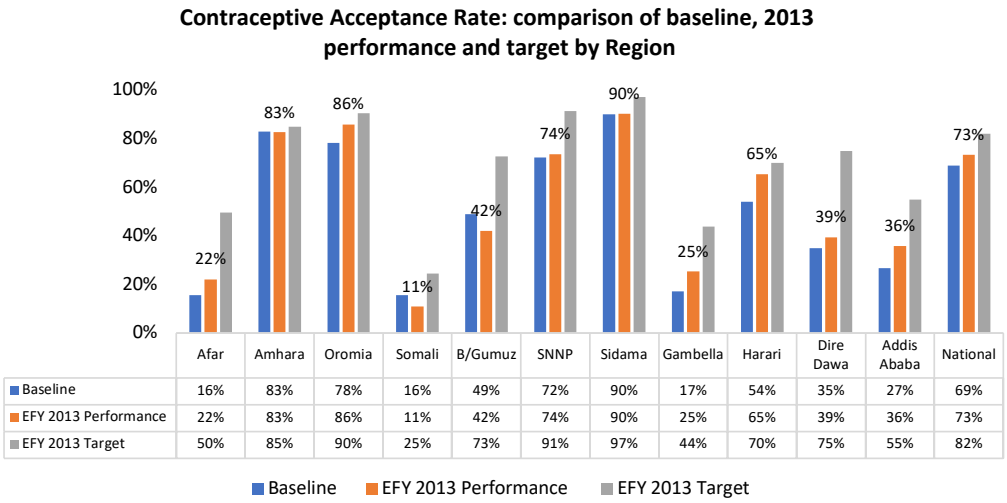


Figure 3. Contraceptive Acceptance Rate: Comparison of baseline, 2013 performance and target by region

Modern Contraceptive Method Mix

As depicted in the chart below, Injectable (58%) account for the biggest share of contraceptive methods used by clients in the fiscal year followed by implants (27%) and oral contraceptive pills (11%). Compared with last year, the share of use of oral contraceptive pills from the total users increased by 2% points while injectable and implants usage decreased by 1% and 2% respectively. Moreover, IUCD utilization remained the same.

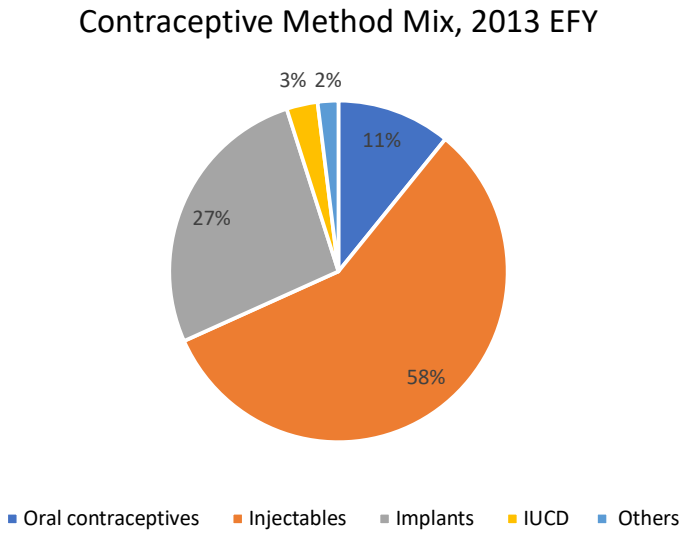


Figure 4. Contraceptive method mix, 2013 EFY

Immediate post-partum Contraceptive Acceptance

The immediate pot partum period is a great opportunity to provide mothers with family planning service, which is crucial for ensuring the health, human rights and well-being of women and their babies. Efforts were exerted to increase immediate postpartum family planning (IPPFP) service coverage mainly through scaling up the service in facilities with no experience of providing IPPFP service for years. The scale up process required enormous capacity building training for service providers and making the necessary commodities available. In EFY 2013, only 7% of women who delivered in a health facility by skilled attendant received immediate post-partum contraceptive. All of the regions performed less than 10% except Sidama (15%), Afar (11%) and Dire Dawa (10%).

Premature removal of long acting family planning

Long-acting reversible methods of family planning methods are assumed safe and highly effective and it serves the need of the users for a long period. In Ethiopia, despite the huge investment being incurred in these commodities by the government and partners, a premature removal of the Long-acting Reversible Contraceptives (PR-LARC) method has been increasing or not decreasing as expected. The number of clients who prematurely remove long acting family planning within 6 months of insertion (79,882) showed a slight decrease (by 1,576) in the current fiscal year compared with last year's value.

During the fiscal year, a study to explore the reasons and contributing factors for the premature removal of the Long-acting reversible methods of family planning (LARFP) methods in Ethiopia was conducted. The study pointed out that side effects, husband's imposition, desire to get pregnant, misconceptions and myths about LARC methods, pressure from friends and close family members, and being divorced were the main reasons for premature removal of LARC methods. The study also revealed poor quality counselling service, provider bias, and intolerance for the early phase of the side effects by the clients and low attention by the responsible bodies as some of the contributing factors that are associated with the premature removal of LARFP methods.

Family Planning in 2013 EFY

Major activities performed in 2013 EFY

- Spot messages and talk shows targeted to COVID-19 pandemic was broadcasted for three consecutive months to ensure continuity of Sexual and reproductive health (SRH) services
- In collaboration with implementing partners, dedicated postpartum intrauterine device (PPIUD) insertion (a specially designed inserter aims at facilitating IUD insertion) have been piloted in 200 health facilities with high delivery load
- Community sensitization programs aimed at improving male involvement in family planning conducted in Afambo & Itang woreda in Afar & Gambella region respectively
- Developed mobile application to support the delivery of quality contraception services by enabling frontline health workers to counsel clients about family planning and contraceptive options
- Prepared a five-year Reproductive Health Commodity Security strategic plan (RHCS) to ensure access to reproductive health commodities
- Provided training on FP-methods counseling and PPFP clinical skills as part of service expansion

  Efforts are strengthened to make more domestic funding available for family planning program and to this end an advocacy guide was prepared and communicated with regional health bureau heads to allocate budget for FP

Challenges

- Budget allocated for family planning from the treasury remain very low
- Lack of adequate budget for FP commodity procurement

Way forward

- Establish model family planning health facilities: Implement family planning quality standards in selected health centers to improve family planning counseling and service uptake. These health facilities could serve as a gold standard and the health facilities will remain under the supervision of regional health bureau and FMOH
- Strengthening family planning service integration with maternal health, newborn health, childhood immunization, and prevention of mother-to-child transmission of HIV services at all health delivery point and across all levels of health facilities
- Increase contraceptive acceptance rate and reach an additional 5.2 million new women and adolescent girls with FP services

Antenatal Care Coverage-ANC 4 or more visits

Antenatal care, a preventive health care, is essential for protecting the health of women and their unborn fetus. It is an opportunity whereby women learn about healthy behaviors during pregnancy, better understand warning signs during pregnancy and childbirth, and receive social, emotional and psychological support at this critical time in their lives, access micronutrient supplementation and vaccinations, and get diagnostic and treatment services for major diseases such as hypertension, HIV, malaria etc.

The annual coverage of ANC-1 during the fiscal year is 100%. However, the timing of the first antenatal visit during the pregnancy period plays important role in risk identification and action.

Out of the total first ANC visits, only 31% of them got the care within the 16 weeks of gestation. Huge majority of the pregnant mothers come for first antenatal care late in the pregnancy period. Continuation ANC to four or more visits facilitates the provision of essential evidence based interventions creating promises life-saving potentials for both the mother and the newborn. It is also a platform for counselling and informing the mother

about delivering in a health facility, and healthy behaviors such as breastfeeding, early postnatal care, and planning for optimal pregnancy spacing.

During the current year, a total 2,303,562 (70%) pregnant women attended four or more antenatal care visits. This year's performance is better by 1% than last year's performance; however, it is less by 22% from the target of the year.

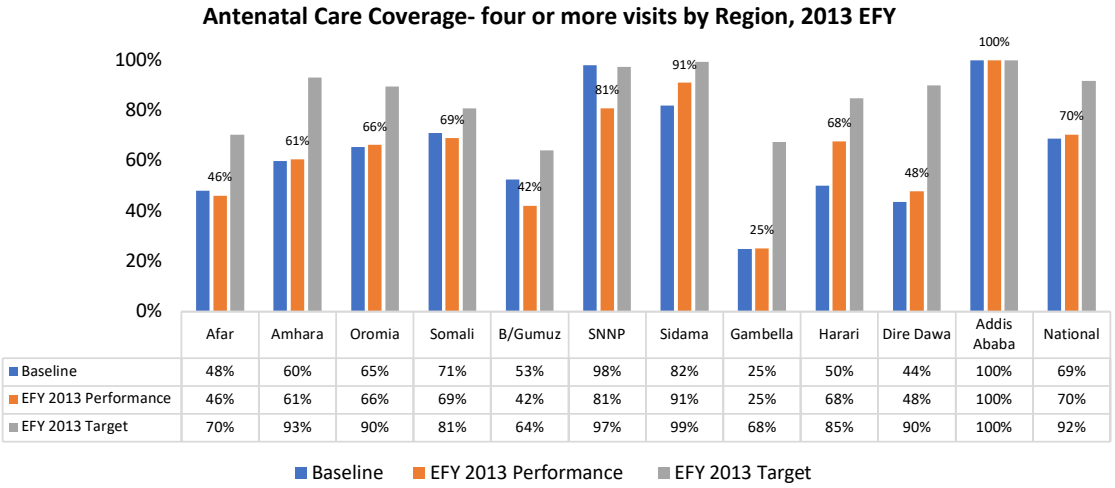


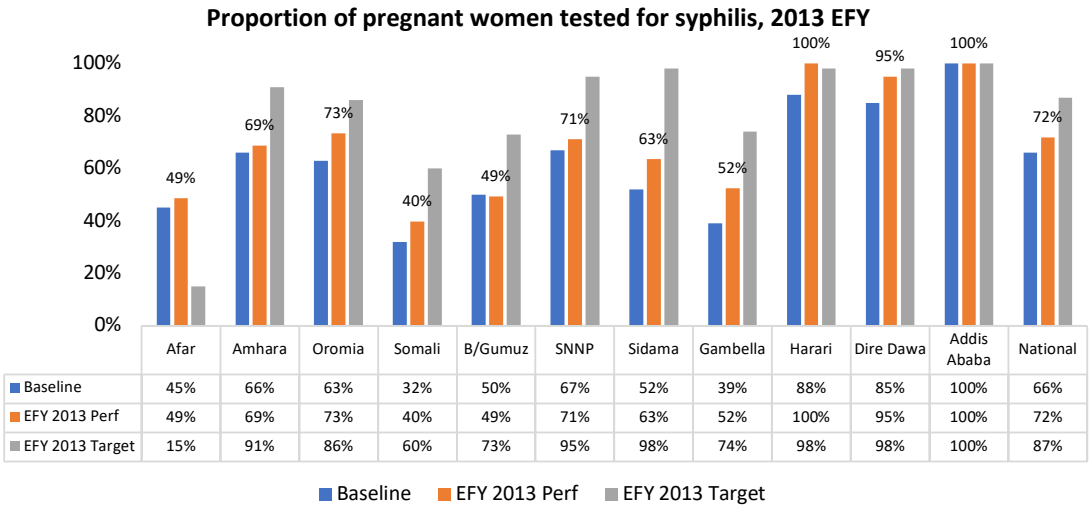
Figure 5. Antenatal Care Coverage- four or more visits by Region, 2013 EFY

When disaggregated by regions, the ANC4+ coverage ranged from 25% to 100%, which demonstrates the presence of huge geographic inequity. All regions except Addis Ababa performed lower than their target. The biggest target-performance difference is in Gambella and Dire Dawa (Both by 42%), followed by Amhara (33%). Four regions (Afar, Somali, Benishangul-Gumuz and SNNP) performed lower than their baseline. Biggest reduction was observed in SNNP (by 17%) followed by Benishangul Gumuz (by 10%). The other regions recorded a performance greater than or equal to their baseline. Biggest increase in Harari (by 17%) followed by Sidama (by 9%).

Syphilis testing for pregnant women

All pregnant women should be screened for syphilis to reduce the risk of congenital Syphilis for their newborns. Syphilis screening is a major component of the focused antenatal package. During 2013 EFY, a total of 2,344,722 (72%) pregnant women were tested for syphilis during pregnancy which shows a 6% increment from the baseline and 15% of shy of the target set for the year. Out of the total tests, 1.4% turned out to be reactive for syphilis and 89% of those pregnant mothers who tested positive for syphilis received treatment.

When disaggregated by regions, the syphilis testing among pregnant women ranged from as low as 40% in Somali followed by 49% in Afar and Benishangul Gumuz to as high as 100% in Addis Ababa and Harari. All regions except Benishangul Gumuz performed better than their baseline. However, all regions except Afar, Harari and Addis Ababa are unable to achieve their targets. In fact, there is a 20% or more difference between the current year performance and the target in six regions, namely Sidama, SNNP, Benishnagul-Gumuz, Amhara, Gambella and Somali.



	Afar	Amhara	Oromia	Somali	B/Gumuz	SNNP	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
Baseline	45%	66%	63%	32%	50%	67%	52%	39%	88%	85%	100%	66%
EFY 2013 Perf	49%	69%	73%	40%	49%	71%	63%	52%	100%	95%	100%	72%
EFY 2013 Target	15%	91%	86%	60%	73%	95%	98%	74%	98%	98%	100%	87%

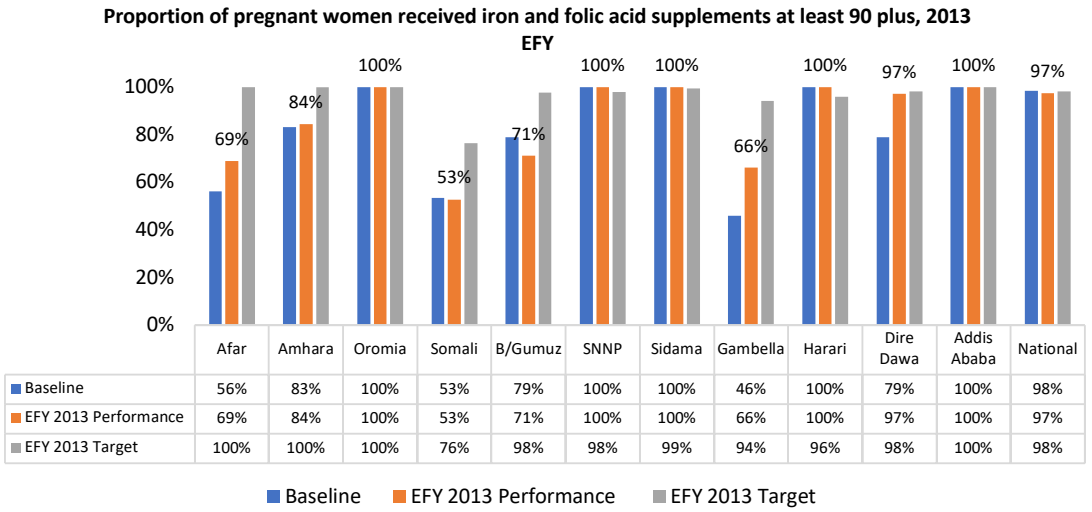
Figure 6. Proportion of pregnant women tested for syphilis, comparison of baseline, 2013 performance and 2013 target

Iron folate supplementation during pregnancy

Iron and folic acid supplements at least 90+ reduces the risk of iron deficiency and anemia in pregnant women and also prevents the newborn from congenital anomalies because of its role in fetal development.

In 2013 EFY, 3,185,607 (97%) of pregnant women have received iron and folic acid supplement at least 90+. This performance is less by 1% from both last year's achievement and the target set for the year.

When looked at from regional perspective, the lowest performance was reported from Somali region (53%) followed by Gambella (66%) and Afar (69%). The highest performance at 100% was five regions (Oromia, Sidama, SNNP, Harari and Addis Ababa).



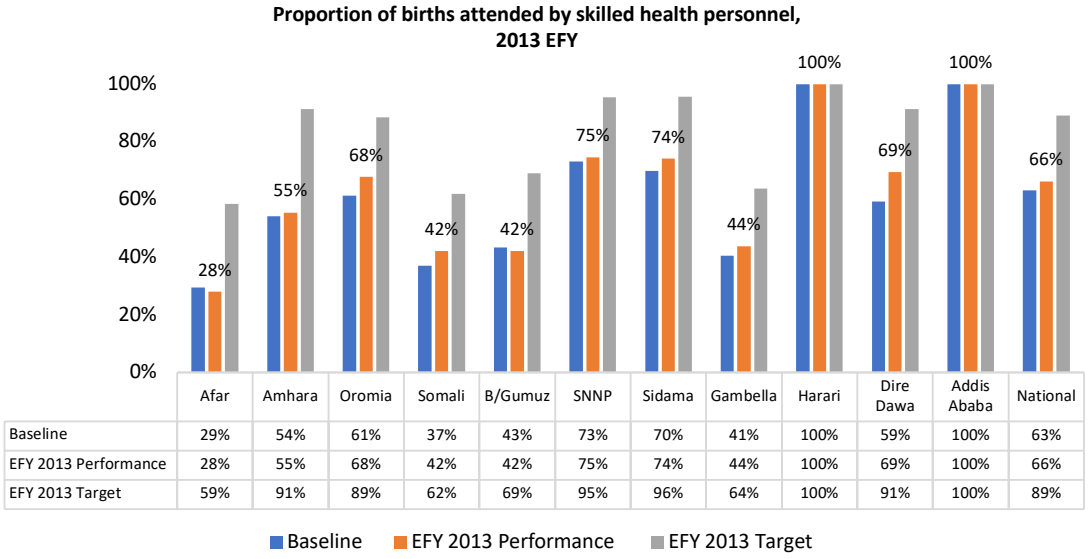
	Afar	Amhara	Oromia	Somali	B/Gumuz	SNNP	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
Baseline	56%	83%	100%	53%	79%	100%	100%	46%	100%	79%	100%	98%
EFY 2013 Performance	69%	84%	100%	53%	71%	100%	100%	66%	100%	97%	100%	97%
EFY 2013 Target	100%	100%	100%	76%	98%	98%	99%	94%	96%	98%	100%	98%

Figure 7. Proportion of pregnant women received iron and folic acid supplements at least 90 plus, 2013 EFY

Skilled Birth Attendance

In 2013 EFY, 2,167,475 (66%) pregnant women received delivery service by a skilled birth attendant. The current year performance is greater than last year's by 3% point but compared with the target set for the year (89%), the performance showed a 23% deficit.

When analyzed by region, the performance for this indicator ranged from 29% (in Afar) to 100% (in Addis Ababa and Harari) signifying the inequity across regions. All regions, except Afar and Benishangul Gumuz (both by 1%) recorded a performance either equal or greater than their baseline. Moreover, only two regions (Addis Ababa and Harari) both at 100% were able to achieve their target. The remaining regions performed lower than their targets of the year. In fact, the target-performance difference in these regions is greater than 20%. The biggest target-performance difference is in Amhara (36%) followed by Afar (31%).



	Afar	Amhara	Oromia	Somali	B/Gumuz	SNNP	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
Baseline	29%	54%	61%	37%	43%	73%	70%	41%	100%	59%	100%	63%
EFY 2013 Performance	28%	55%	68%	42%	42%	75%	74%	44%	100%	69%	100%	66%
EFY 2013 Target	59%	91%	89%	62%	69%	95%	96%	64%	100%	91%	100%	89%

Figure 8. Proportion of births attended by skilled health personnel, 2013 EFY

Caesarean Section (C/S) service

According to WHO estimation, 5% to 15% of pregnant women develop severe complications that requires caesarean section intervention. The caesarean section rate in the current fiscal year is 4.6%, which is better by 0.3% compared with last year's performance.

In general, all regions except Gambella, showed improvement in C/S rate. The highest C/S rate was reported in Addis Ababa (49%) followed by Harari (28%) and Dire Dawa (13%). All the remaining regions have a C/S rate of less than 5%, which requires investigation and appropriate action such as expansion of BEmOC and CEmOC services. The lowest C/S rate among these regions was recorded in Somali (1%) followed by Gambella and Afar both at 2%. Compared with their baseline, Dire Dawa (by 1.7%) and Addis Ababa (by 1.6%) showed the biggest changes.

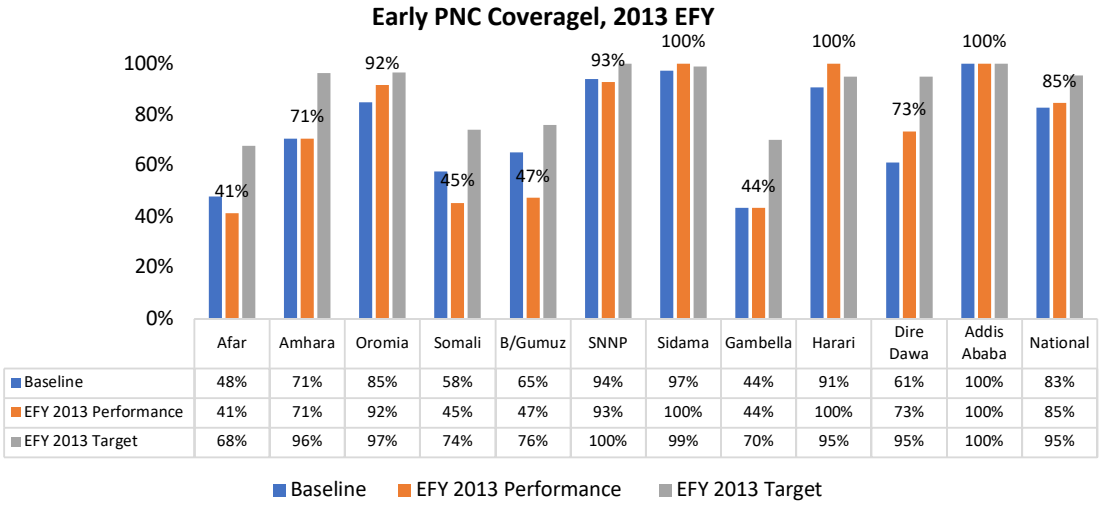
Early Postnatal Care Service (PNC)

The postnatal period, the first six weeks after birth is the most vulnerable time for both is during the hours and days after birth for the survival of the mother and her newborn. Shortage of care in this period may result in disability or death as well as missed opportunities to promote healthy behaviors, affecting women, newborns, and children. Vast majority of maternal and newborn deaths occur during the early antenatal period, which is within seven days after birth.

During the current fiscal year, a total of 2,766,314 (85%) women received PNC within seven days after delivery. This has shown an increase of 2% points compared with the baseline and a deficit of 10% from the target. Out of the total early PNC users, 62% of the care was given within 24 hours after delivery.

When disaggregated by regions, the early postnatal coverage ranged from 41% to 100%. The highest coverage was recorded in Addis Ababa, Harari and Sidama all at 100% while the lowest was reported from Afar (41%) followed by Gambella (44%) and Somali (45%). All regions except Benishangul Gumuz (less by 18%), Somali (less by 13%), Afar (less by 6%) and SNNP (less by 1%) performed better than their baseline. The biggest increase was in Dire Dawa (by 12%), followed by Harari (by 9%) and Oromia (by 7%).

Addis Ababa, Harari and Sidama achieved their target of the year while the remaining regions could not. The biggest target-performance difference was in Benishangul Gumuz and Somali (both by 29%) followed by Gambella region (by 27%).



	Afar	Amhara	Oromia	Somali	B/Gumuz	SNNP	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
Baseline	48%	71%	85%	58%	65%	94%	97%	44%	91%	61%	100%	83%
EFY 2013 Performance	41%	71%	92%	45%	47%	93%	100%	44%	100%	73%	100%	85%
EFY 2013 Target	68%	96%	97%	74%	76%	100%	99%	70%	95%	95%	100%	95%

Figure 9. Early PNC coverage by region, 2013 EFY

Missed Opportunities in pregnancy continuum of care

Early initiation of ANC and continuation of the care to four or more visits providing essential evidence based interventions such as syphilis screening, hepatitis testing, HIV testing supplementation of micronutrients such as iron folate, provides women and babies with life-saving potentials. In the continuum of the care, ANC also creates opportunity for delivery by skilled attendant, early postnatal care and other services essential for the women and the newborn.

During the reporting period, 100% of pregnant women got at least one antenatal care visit by HEWs or other health care providers. However, the continuity and the content of the care still lags behind the expectation. About 34% (more than 1.1 million) pregnant mothers who had one ANC visit either delivered at home or not assisted by a skilled personnel. Besides, close to a million did not receive four or more visits. In relative terms, pregnant women who got testing for HIV and those who received iron folate showed minor gaps.

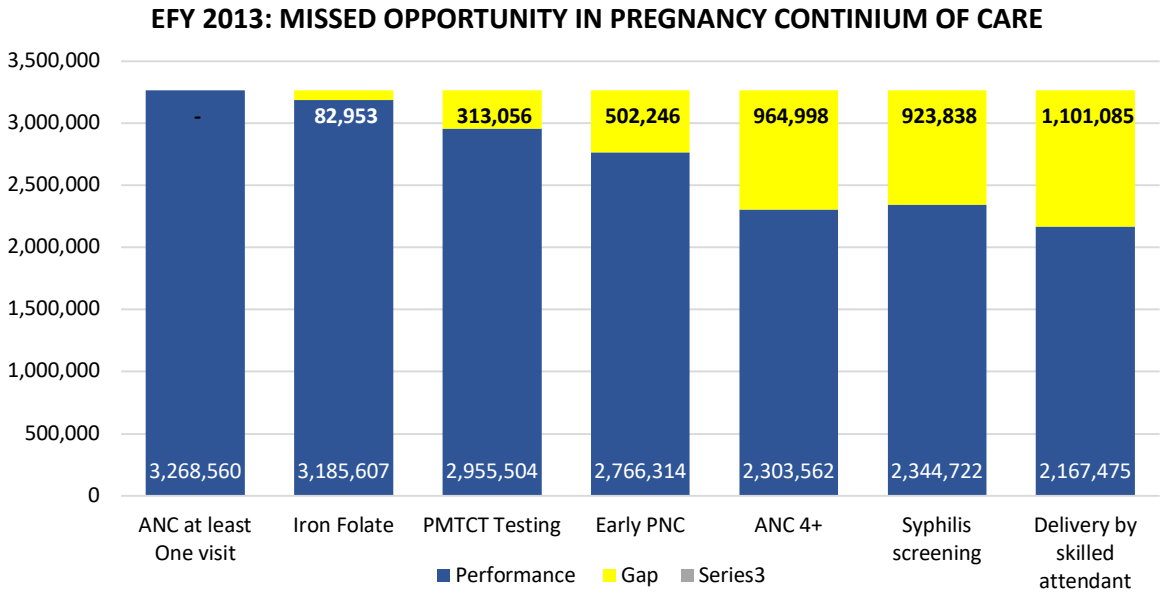


Figure 10. Missed opportunity in pregnancy continuum of care, 2013 EFY

Abortion Service

Comprehensive abortion care (safe abortion care service and post-abortion care services) for the needy in accordance with the legislation of the country is a high impact intervention that saves millions of maternal deaths.

During 2013 EFY, a total of 247,226 women received a comprehensive abortion care service which is less by about 14 thousand compared with last year. From the total number of women who received comprehensive abortion care, 136,792 (56%) were safe abortion care service and 107,412 (44%) were post abortion care services. There is a huge tendency to get comprehensive abortion service in the first trimester (<12weeks of gestation) which accounts for 80%. However still, 20% of them come late which may increase the risk of complications.

Disaggregated by age, the majority (38%) of them fall under the age group 20-24 years, which is followed by 25-29 years, which constitute for 28% of the share. Teenagers account for 27,705(206%) the clients who received abortion service.

Still Birth Rate

By definition, a stillbirth is birth of a baby born with no signs of life at or after 28 weeks of gestation. Still birth rate, which is calculated as the proportion of stillbirths from total births attended usually serves as a proxy indicator for the quality of obstetric care.

In 2013 EFY, the national still birth rate was 12 per 1,000 births which is lower than last year's still birth rate of 14 per 1,000. There is a huge disparity among regions ranging from 6 per 1,000 births in Sidama to 52 per 1,000 in Harari region. Addis Ababa, Oromia, Somali and Gambella regions exhibited reduction in still birth rate compared with last year baseline.

Table 4. Still birth rate per 1,000 births attended in 2013 EFY

Region	Still Birth rate (Per 1,000 births attended)	
	2012 EFY	2013 EFY
Afar	18	20
Amhara	17	17
Oromia	14	11
Somali	23	17
B/Gumuz	17	18
SNNP	8	8
Sidama	7	6
Gambela	26	23
Harari	49	52
Dire Dawa	24	29
Addis Ababa	19	14
National	**14**	**12**

Maternal and perinatal death Surveillance and Response (MPDSR)

In the current five-year health sector transformation plan (HSTP-II) and reproductive health strategy, reduction of maternal and perinatal deaths is included as a top priority. MPDSR is one of the strategies designed for providing essential information needed to stimulate and guide actions to prevent future maternal and perinatal deaths. MPDSR is a form of continuous surveillance linking the health information system and quality improvement process from local to national levels.

Based on the WHO and World Bank 2017 estimate, about 13,946 maternal deaths were estimated to happen in 2013 EFY. In general, the number of maternal deaths notified through the surveillance system was low, with only 1,027 (7.4%) maternal deaths were notified from the total estimated deaths in 2013 EFY. From the total notified deaths, 670 (65%) were case-based reports, which were subsequently investigated, reviewed, and reported. Despite the presence of improvement in the verification of the notified death, the surveillance is not yet well representing the national figure of maternal death. However, the trend in the number of maternal deaths notification has shown a constant pattern over the years.

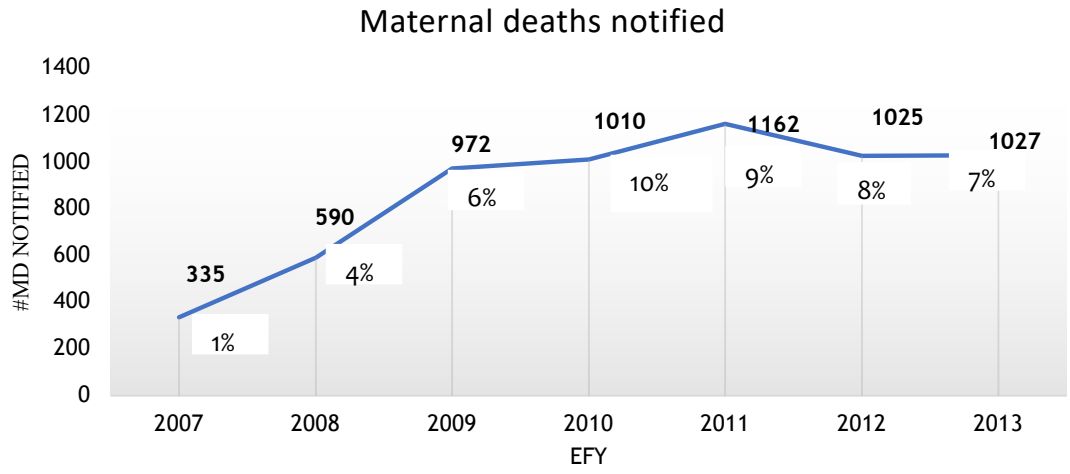


Figure 11. Number of maternal deaths reported against the estimated maternal death reported through MPDR surveillance system (2007-2013 EFY)`

Regarding regional variation in maternal death notification, the highest percentage of maternal deaths from the estimated maternal deaths was notified in Harari region (69%) followed by Addis Ababa (17%) and the lowest notification rate was in Sidama region (1.4%) followed by Gambella (4%).

Table 5. Number of maternal deaths notified through MPDS system in 2013 EFY by region

Region	Estimated no. of maternal deaths	Number of notified maternal deaths		Percent of notified maternal deaths	
		2012EFY	2013EFY	2012EFY	2013EFY
Afar	229	16	34	7%	14.8%
Amhara	3050	280	262	9%	8.6%
Oromia	5441	401	417	8%	7.7%
Somali	807	39	45	5%	5.6%
Benishangul Gumuz	163	32	21	21%	12.9%
SNNPR	2292	96	104	3%	4.5%
Sidama	635	_	9	_	1.4%
Gambella	100	9	4	15%	4.0%
Harari	34	36	23	110%	68.5%
Dire Dawa	61	17	10	26%	16.4%
Addis Ababa	355	50	61	15%	17.2%
National	13946	1025	1027	8%	7.4%

**MMR of 401 per 100,000 live births (WHO and World Bank) used to proportionate to the regions

Regarding case-based reporting among the regions; all regions implemented case-based reporting in 2013 EFY. On the other hand, the performance of death review was varied across the regions, the lowest rate of review of death was observed in Benishangul and SNNP in which only 24% and 25% of death were reviewed respectively. The remaining regions reviewed more than 50% of the reported deaths.

Causes of notified maternal deaths

The trend in causes of maternal death since the MDSR is started showed that Obstetric hemorrhage, anemia, hypertensive disorders during pregnancy, and sepsis have persisted as the major causes of the 670 maternal deaths reviewed in 2013 EFY. Out of these maternal deaths, 219 (82.2%) were due to direct causes, while the remaining 17.8% were due to indirect causes. Obstetric hemorrhage was the leading cause of maternal deaths accounting for 52.4% of the total maternal deaths followed by anemia (20%), hypertensive disorders during pregnancy (13.1%), and sepsis (10%) of total maternal deaths Abortion contributed to only 3% of maternal deaths in the 2013 EFY.

Perinatal death

In 2013EFY, 7042 perinatal deaths were notified which is 6% of the estimated perinatal death according to EDHS 2016 and from notified death 1,650(23%) were reviewed and reported via case-based reporting which is the highest Perinatal death review since the implementation started in 2009 EFY. Most of the perinatal death review was reported from the Amhara region (56%) followed by Addis Ababa (23%) and Oromia (7%).

Regarding the cause of perinatal death, the leading cause was prematurity, which contributed 577 (35%), followed by Asphyxia (31%) and Sepsis, Pneumonia & meningitis altogether contributing 13% of the deaths.

Maternal Health services in 2013 EFY

Major activities

- Enhanced implementation of initiatives such as early ANC initiation and Post-natal 24 hour care and stay, maternity waiting home, establishment of obstetric referral networking with in & out of catchment area
- Social mobilization and awareness creation activities to strengthen ANC, institutional delivery and PNC (Safe motherhood month initiative, Pregnant women conference and other SBCC interventions etc)
- Capacity building on Catchment based clinical mentorship so far reach 265 hospitals & 530 health centers were mentored
- Efforts made to establish mini blood bank
- Strengthen MPDSR system & develop new initiative such as confidentiality enquiry
- Develop Call to action document & implement activities
- Conducted capacity building for health care providers on comprehensive an abortion care service
- Advocacy on elimination of obstetric fistula on international fistula day , In addition integrating obstetric fistula surveillance and response with in PHEM system
- Sensitization workshop done for Gimbichu Woreda transformation
- Support conflict affected areas technically and by mobilizing resources

Challenges

- Shortage of budget & delayed approval and release
- Shortage of maternal health commodities
- Delayed procurement process of Mini Blood Bank equipment
- COVID-19 pandemic
- Lack of consistency of local mentoring fee for catchment based clinical mentorship.
- Shortage of ambulance and misuse
- Security problem

Way forward

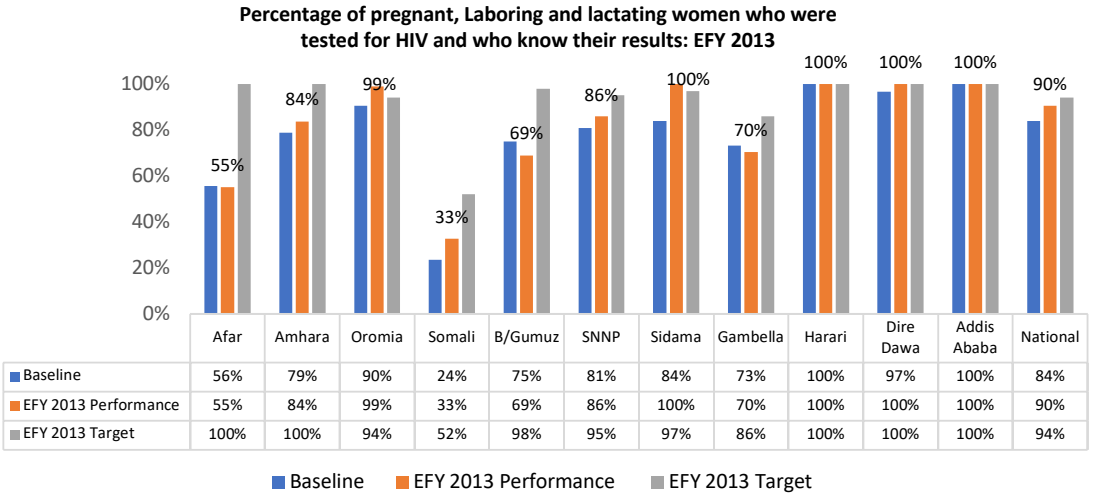
- Improve maternal health commodity budget and overall budget allocation for maternal health programs
- Finalize reimbursement protocols to initiate reimbursement of MH commodities
- Planning and close monitoring of procurement to establish a mini blood bank in 77 hospitals
- Institute uniform mentorship payment system
- Improve ambulance management, secure budget for maintenance & buy additional ambulances
- Address maternal health service in the midst of humanitarian setting
- Strengthen the diagnosis and treatment of obstetric fistula
- Support implementation of Reproductive Health strategic plan, national obstetric fistula elimination strategy, Obstetric protocols, and ANC and Catchment Based Clinical Mentorship guidelines

3.4. Prevention of Mother to Child Transmission of HIV (PMTCT)

Testing for PMTCT

Testing pregnant woman for HIV is the key entry point to PMTCT and other HIV care and treatment services. During the performance year, a total of 2,955,504 (90%) pregnant women were tested for HIV and know their status which exceeds last year's performance by 6% points and is only 4% shy of the target. Vast majority (79%) of the tests were conducted during pregnancy while the remaining 18% and 2% testing happens during labor and delivery, and postpartum period respectively.

The regional performance ranges from as low as 33% in Somali followed by 55% in Afar to as high as 100% in Addis Ababa, Sidama, Dire Dawa and Harari. Three regions; namely Afar, Benishangul Gumuz and Gambella performed lower than their last year performance while the remaining regions performed either equal to greater than their baseline. The biggest increment was recorded in Sidama region (by 16%). Six regions are unable to achieve their target with the biggest target-performance gap observed in Afar (by 45%) Benishangul-Gumuz (29%) and Somali (19%).



	Afar	Amhara	Oromia	Somali	B/Gumuz	SNNP	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
Baseline	56%	79%	90%	24%	75%	81%	84%	73%	100%	97%	100%	84%
EFY 2013 Performance	55%	84%	99%	33%	69%	86%	100%	70%	100%	100%	100%	90%
EFY 2013 Target	100%	100%	94%	52%	98%	95%	97%	86%	100%	100%	100%	94%

Figure 12. Percentage of pregnant, Laboring and lactating women who were tested for HIV and who know their results in 2013EFY

Percentage of HIV-positive pregnant women who received ART to reduce the risk of mother-to child transmission

Based on the recent (April 2021) HIV Related Estimates and Projections in Ethiopia, there are an estimated 18,677 HIV positive pregnant and lactating women who are in need of PMTCT. In 2013 EFY, a total of 13,064 (79%) pregnant and lactating women received ART for the prevention of mother to child transmission of HIV. Out of the total pregnant and lactating women who received ART, 62% (8,359) were known HIV-positive women who get pregnant while on ART and linked while the remaining 38% (5,201) were newly identified positives during ANC (30%), labour and delivery (6%) and PNC (3%) for the first time and linked to PMTCT.

When analyzed by region, the performance for this indicator ranged from 29% (in Sidama) followed by Afar 58%) to 100% (in Dire Dawa). Four regions (Sidama, Afar, Oromia and Harari) performed lower than their baseline. Moreover, there was no region that achieved the target set for the year with four regions having a target-performance gap of 20% or more; Sidama (by 66%), Afar (by 42%), Oromia (by 25%) and Benishangul-Gumuz (by 24%).

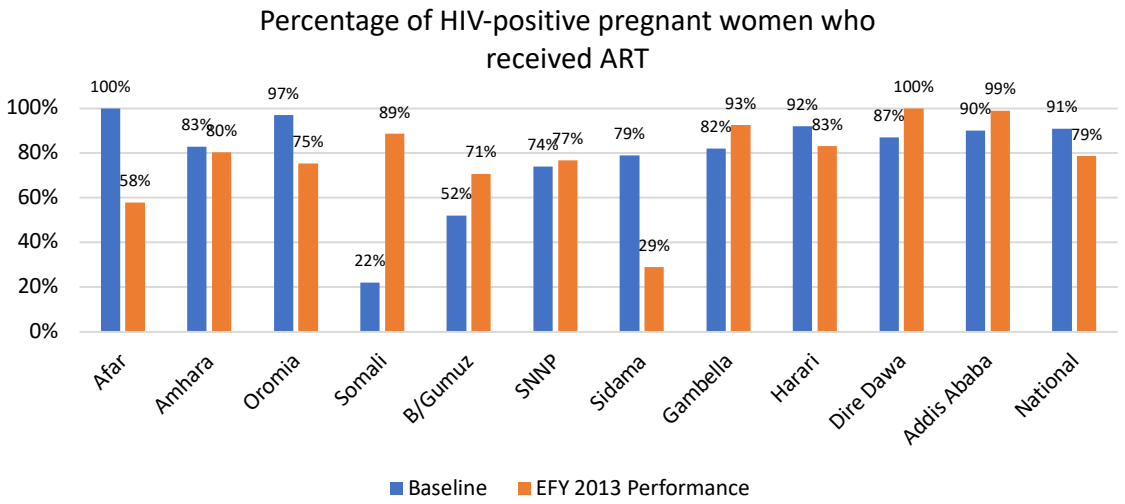


Figure 13. Percentage of HIV-positive pregnant women who received ART to reduce the risk of mother-to child-transmission in 2013 EFY

HIV testing of partners of pregnant, laboring and lactating women is a major component of the PMTCT service. In 2013 EFY, a total of 288,744 partners were tested for HIV out of whom 1,758 (0.6%) were tested positive for HIV.

During the fiscal year, a total of number of 10,300 (62%) HIV exposed infants received virological test result within 12 months, out of which 68% were tested within two months after birth. Out of the total tests, 309 (3%) turned positive. Confirmatory test (antibody test) for HIV exposed infants by 18 months was done to a total of 8,799 HIV exposed infants out of which 1.4% had a positive result.

Regarding antiretroviral (ARV) prophylaxis, 6,570 (35%) HIV exposed infants received antiretroviral (ARV) prophylaxis for 12 weeks for prevention of Women-to-child transmission (PMTCT). With regard to co-trimoxazole prophylaxis use within two months of birth, 9,100 (49%) infants born to HIV positive women out of the total estimated were started on cotrimoxazole prophylaxis.

Prevention of mother to child transmission of HIV in 2013 EFY

Major activities performed:

- Dual HIV and Syphilis test was piloted at four regions in order to strengthen HIV and Syphilis testing for pregnant women
- EMTCT validation committee prepared validation report based on the WHO EMTCT validation report
- Focuses on improving quality of MNCH/PMTCT/EID services (PMTCT mentorship implementation)
- Implementation of Dual prophylaxis for all HEI
- Strengthening implementation of PMTCT Cohort Monitoring
- MSG for adherence counseling and tracing of lost to follow ups (LTFU)

Challenges:

- Insecurity and displacement at different regions
- Budget shortage and less attention to MSG groups
- Data quality problem and major performance discrepancies between regions
- Supply interruption for HIV commodities

Way forward:

- Strengthening Effective supportive supervision and mentorship by utilizing CQI and DASH board
- Bringing MSGs in the government system or mobilizing resource for them to maintain the service they are providing
- Strengthening the supply chain management at the national level & regional level
- Expansion of POC sites for the service quality and coverage of PMTCT services

Maternal health services in Tigray region

Due to the existing political situation in Tigray region, health services are interrupted in some areas and it is extremely difficult to get accurate data on actual service uptake status of maternal health services in the region. The following table summarizes the number women who are reported to have received essential services in the region.

Table 6. Coverage of maternal health services in Tigray region, 2013 EFY

Indicator	Eligible	Base-line	Performance		Target in %
			#	%	
Contraceptive acceptance rate	1,131,486	81%	170,345	15%	80%
Antenatal care 4+ coverage	194,033	96%	28,733	15%	100%
Percentage of deliveries attended by skilled health personnel	194,033	98%	31,103	16%	100%
Early postnatal care coverage	194,033	99%	35,723	18%	100%
Percentage of pregnant women counseled and tested for PMTCT	194,033	99%	41,517	21%	98%
Percentage of pregnant and lactating women who received ART to prevent mother to child transmission of HIV	2, 079	100%	496	24%	95%

3.5. Neonatal, Child, Adolescent and Youth Health

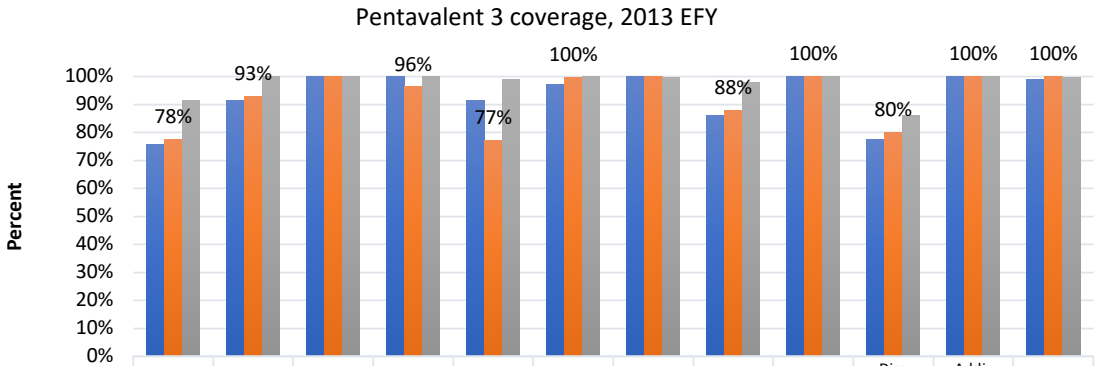
To realize the child health targets set of HSTP-II, Ministry of Health has designed and been implementing high impact interventions at facility and community levels. In the HSTP II period, some of the major neonatal and childhood interventions include implementation of ; New-born corners, Advanced neonatal care, expansion of Neonatal Intensive Care Units (NICU), Kangaroo mother care (KMC), community and facility based Integrated Management of Neonatal and Childhood Illnesses (IMNCI), implementation of Early childhood development (ECD) interventions, strengthening the immunization program and other high impact interventions. In this section, summary of key achievements, challenges and way forward are discussed.

3.5.1. Expanded Program on Immunization

According to the routine health information system data in 2013 EFY, the national pentavalent-3, measles, and fully vaccination coverages were 100%, 97% and 93% respectively. The performance of these EPI key performance indicators show that the coverage is almost similar to the previous year's performance, despite challenges of immunization services interruptions due to conflicts in different part of the country causing health emergencies and presences of COVID 19 pandemic affecting the health system. The detail national and regional performance is described below.

Pentavalent-3 vaccination coverage

In 2013 EFY, about 3,131,041 (100%) infants under 1 year of age were vaccinated with pentavalent third dose. However, there is regional disparity among regions, ranging as low as 77% in Benishangul Gumuz and Afar regions respectively to more than 100% in Oromia, Harari, SNNPR, SIdama and Addis Ababa. Except B. Gumuz and Somali Regions, all regions showed slight increment from their baseline performance.



	Afar	Amhara	Oromia	Somali	B/Gumuz	SNNPR	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
Baseline	76%	92%	100%	100%	92%	97%	100%	86%	100%	77%	100%	99%
Performance	78%	93%	110%	96%	77%	100%	105%	88%	100%	80%	100%	100%
Target	91%	100%	100%	100%	99%	100%	100%	98%	100%	86%	100%	100%

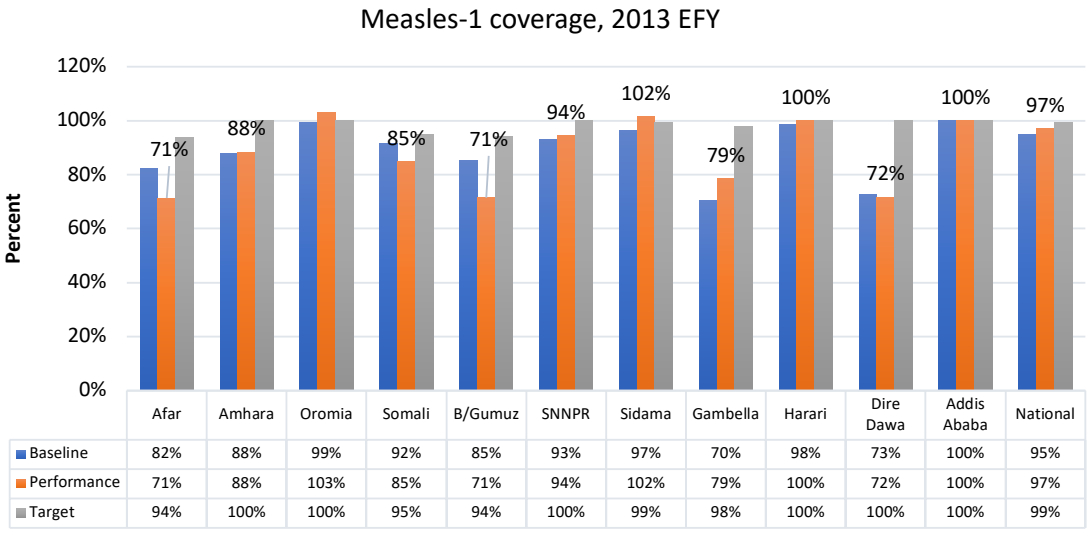
Figure 14. Pentavalent 3 vaccination coverage by region, 2013 EFY

Note about Tigray region – Performance report is received for the first quarter of 2013 EFY only. In the first quarter of 2013 EFY, 43,142 (24%) infants received pentavalent 3 vaccine in Tigray region.

Measles-1 Vaccination Coverage

The national Measles-1 vaccination coverage (MCV1) in 2013 EFY is 97%, with the regional performance ranging from 71% in Gambella and B. Gumuz region to 100% in Oromia, Sidama, Harari and Addis Ababa city administration. Except Afar, Gambella, and B. Gumuz, all regions showed slight increment from their baseline performance. Oromia, Sidama, Harari and Addis Ababa performed above the national average.

Regarding the second dose of measles vaccine (MCV2), 2,313,704 (72%) children received the second dose of Measles in 2013 EFY. However, regions such as Afar(46%), Benishangul Gumuze (52%), Gambella(48%), and Somlai(60%) achieved relatively lower coverage of MCV2 vaccination coverage.



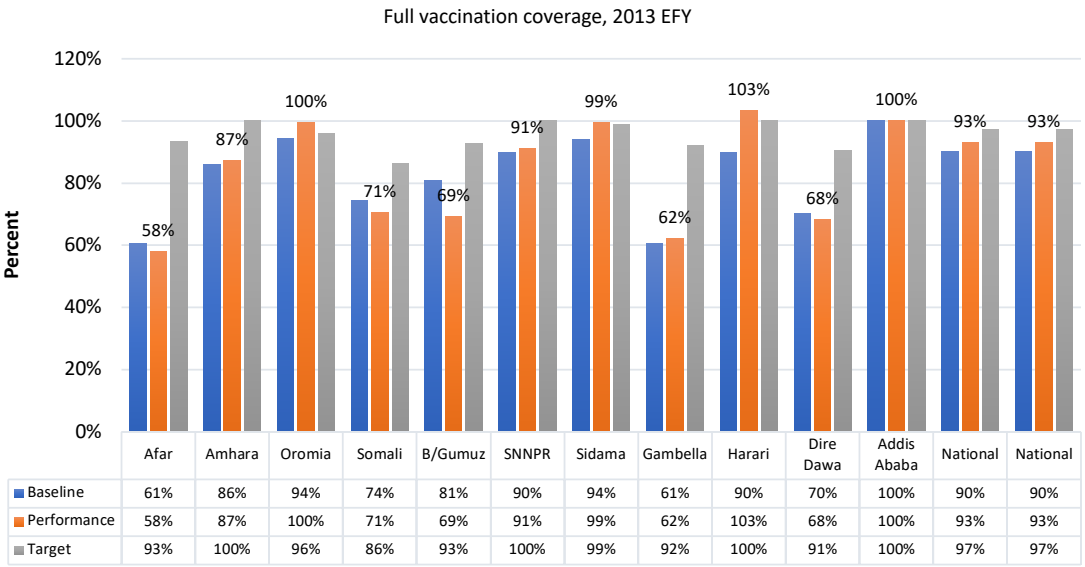
	Afar	Amhara	Oromia	Somali	B/Gumuz	SNNPR	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
Baseline	82%	88%	99%	92%	85%	93%	97%	70%	98%	73%	100%	95%
Performance	71%	88%	103%	85%	71%	94%	102%	79%	100%	72%	100%	97%
Target	94%	100%	100%	95%	94%	100%	99%	98%	100%	100%	100%	99%

Figure 15. Measles-1 vaccination coverage (MCV1) by region, 2013 EFY

Note about Tigray region – Performance report is received for the first quarter of 2013 EFY only. In the first quarter of 2013 EFY, 38,090 (21%) infants received Measles-1 vaccine in Tigray region.

Full vaccination coverage

Nationally 2,815,320 (93%) under one infants received all types of basic antigens in before celebrating their first-year birthday. Looking into the regional data the performance ranges from 58% in Afar region to 100% in Harari, Addis Ababa and Oromia. All regions showed slight performance increment from their baseline except Afar, Benishangul Gumuz and Somali regions.



	Afar	Amhara	Oromia	Somali	B/Gumuz	SNNPR	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National	National
Baseline	61%	86%	94%	74%	81%	90%	94%	61%	90%	70%	100%	90%	90%
Performance	58%	87%	100%	71%	69%	91%	99%	62%	103%	68%	100%	93%	93%
Target	93%	100%	96%	86%	93%	100%	99%	92%	100%	91%	100%	97%	97%

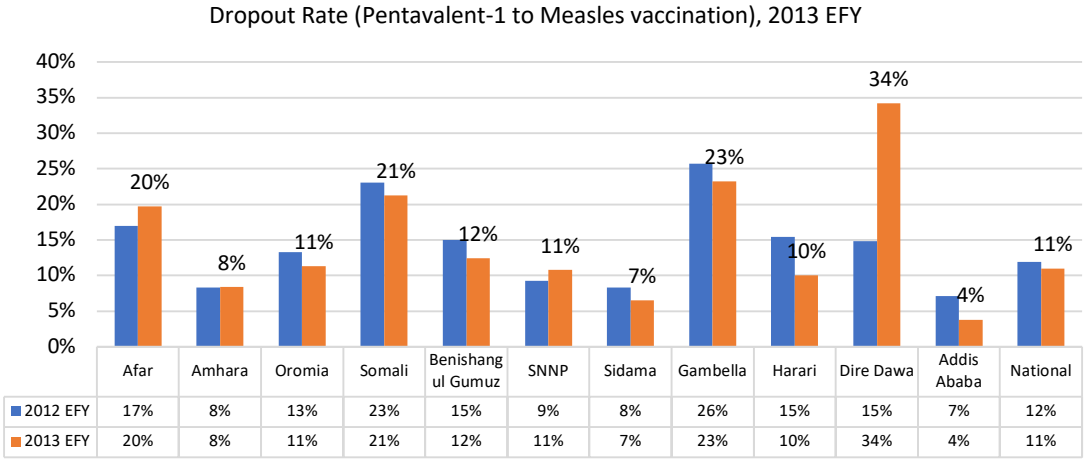
Figure 16. Full vaccination coverage by region, 2013 EFY

Note about Tigray region – Performance report is received for the first quarter of 2013 EFY only. In the first quarter of 2013 EFY, 37,305 (20.5%) infants received Measles-1 vaccine in Tigray region.

Dropout Rate (Pentavalent-1 to Measles vaccination)

In 2013 EFY, the national pentavalent-1 to measles dropout rate is 11%, which is higher than the acceptable range. Only three regions have a dropout rate less than 10% (Addis Ababa, Amhara and Sidama). The highest penta-1 to MCV1 dropout rate was observed in Dire Dawa (34%) followed by Gambella (23%) and Somali (21%) regions.

Somali region 21%, followed by Afar 20% and the lowest dropout rate was registered in AA city administration (3.8%).



	Afar	Amhara	Oromia	Somali	Benishangul Gumuz	SNNP	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
2012 EFY	17%	8%	13%	23%	15%	9%	8%	26%	15%	15%	7%	12%
2013 EFY	20%	8%	11%	21%	12%	11%	7%	23%	10%	34%	4%	11%

Figure 17. Dropout Rate (Pentavalent-1 to Measles vaccination), 2013 EFY

Other major Immunization activities conducted in the fiscal year

- Vaccinated more than 14.5 million children aged 9-59 month for measles all over the country
- Switch from TT to Td and PCV10 to PCV13
- HepB birth dose pilot implementation underway in Afar, Addis Ababa, Amhara & Tigray
- Financial support was provided to regions for the implementation of periodic intensification of routine immunization (PIRI) health system strengthening activity
- HPV vaccination: 1,384,517 (92%) for the 1st dose of 2020 cohort and 1,244,467 2nd dose of HPV 2019 cohort were vaccinated with human papilloma virus (HPV) vaccine
- Conducted Cold chain equipment inventory
- Panel discussion on world polio day about Polio eradication and COVID-19 vaccine was conducted
- COVID 19 vaccine introduction
- Measles 5 dose pilot implementation in Amhara and Oromia region
- TV and radio spot messages transmitted at national and regional medias to celebrate African vaccination week

Challenges

- Global COVID 19 Pandemic
- School closure in some areas affected HPV vaccination
- Insecurity /Local unrest in some parts of the country
- Shortage of cold chain equipment and other supplies
- Emergence of circulating vaccine derived polio virus type 2 (cVDPV2), diverting attention and resources of government and partners
- Inadequate government budget allocation for immunization at service delivery points
- Sub-optimal reporting of adverse effects following immunization (AEFI)
- Delayed shipment of additional doses of Vaccine-uncertainties in vaccine logistics system

Way forward

- Strengthen commitment & engagement of leadership at all level
- Continue advocacy and communication for COVID 19 vaccination uptake
- Strengthen and expand vaccination delivery services access and utilization to address the zero dose and under-vaccinated children (PIRI and RED)
- Implement data quality activity (digitalization, data triangulation)
- Strengthen public private partnership and domestic resource mobilization
- Continuous monitoring and supervisory activities, at each level
- Enhance Advocacy, communication, and social mobilization activities at all level

3.5.2. Neonatal and Child Health Services

In the effort to reach the goal of universal access to essential high impact neonatal and child health services, the health sector has achieved remarkable results during the HSTP-I period. The results have been strengthened in the first year of HSTP-II. In respect to service expansion, the proportion of health facilities that provide IMNCI services and the proportion of woreda that provide iCCM services as per the standard increased from 89% (2007 EFY) to 96%(2013 EFY) and from 74% (2007 EFY) to 97.7 % (2013 EFY), respectively. The proportion of health posts providing CBNC also increased from 58% (2007 EFY) to 93% (2013 EFY). Moreover, the percentage of health centers with a Newborn corner increased from 69.6% (2007 EFY) to 78% in (2013 EFY) while the number of hospitals with NICU increased from just 30 (2007 EFY) to 196 in (2013 EFY).

With regard to service uptake, in EFY 2013, 74.2% of under five children with diarrhea received ORS & Zinc treatment, while 60.8 % of the same age group with ARI received antibiotics. In addition, 100% of asphyxiated newborns were resuscitated and 41.8% of newborns with neonatal sepsis received routine treatment. During the year, 62.4% of very low birth weight (VLBW) newborns received Kangaroo method care (KMC).

In 2013 EFY, various initiatives have been implemented to improve the health and development status and reduce morbidity & mortality among newborns. The major initiatives that have been implemented include Expansion & Strengthening of Community Based New-Born Care (CBNC), implementation of Integrated Community Case Management of New-born & Childhood Illness (iCMNCI), Integrated Management of Newborn and Childhood illnesses (IMNCI), expansion of NICU services, Expansion of Essential New-born Care (ENBC), and initiation and implementation of Early Childhood Development (ECD) intervention. COVID-19 Pediatric management protocol and child-health mitigation plan was developed, published and distributed to health facilities. Its implementation has been monitored on a weekly basis.

Performance of different neonatal and child health interventions is described below:

Community Based New-Born Care (CBNC) and Integrated Community Case Management of Newborn & Childhood Illness (ICMNCI)

In the fiscal year, more focus was provided to expansion of CBNC and iCMNCI services to more health posts in pastoralist regions.

Major activities related to CBNC include:

- Mobilized resource and sent for the three pastoralist regions to launch Community Based Newborn Care (CBNC) program in 36 districts (24 in Somali, 9 in Afar, and 3 in Gambella)
- CBNC program post-training follow-up has been provided to 103 health posts in Somali region
- Performance review and Clinical mentoring meeting (PRCMM) was conducted in 5 Woredas of Gambella, 6 Woredas of Afar, 2 Woredas of Benishangul Gumuz and 6 Woredas of Somali

Major activities related to iCMNCI include:

- Provided ICMNCI training to 152 Woreda and Zone Health Office experts in woredas where the Integrated Community Case Management for Newborn and Childhood Illness (iCMNCI) program was already launched
- Performance review and Clinical mentoring meeting (PRCMM) training was given for 20 professionals from the four pastoral regions
- one-day orientation workshop was held with 20 pastoralist regions regional health bureau child health experts on Contextualized iCMNCI implementation guide
- To strengthen implementation of multi-sectoral woreda transformation, iCMNCI training was provided to 30 HEWs in Gimbichu Woreda
- Provided technical support while implementing Possible Serious Bacterial Infection (PSBI) implantation research in two selected districts
- Initiated pilot implementation of eCHIS- ICCM/CBNC modules in one district of Oromia region

Table 7. Percentage of health posts providing CBNC and iCCM service, 2012-2013 EFY

Region	Proportion of health posts implementing CBNC		Proportion of health posts implementing iCCM	
	2012 EFY	2013 EFY	2012 EFY	2013 EFY
Afar	74.0%	95.9%	100%	100.0%
Amhara	100%	95.0%	100%	96.0%
Oromia	98%	94.9%	98%	97.2%
Somali	47%	57.4%	98%	99.4%
Benishangul-Gumuz	94%	99.3%	100%	99.5%
SNNP	98%	99.4%	98%	99.5%
Sidama		94.5%		95.6%
Gambella	69%	89.9%	97%	94.9%
Harari	0%	56.3%	100%	93.8%
Dire Dawa	0%	0.0%	100%	94.4%
Addis Ababa	NA	NA	NA	NA
National	94%	93%	99%	97.7%

Integrated Management of Newborn and Childhood Illnesses (IMNCI)

Strengthening the implementation of Integrated Management of Newborn and Childhood Illnesses (IMNCI) at health facilities has been one of the major initiatives in 2013 EFY. The major activities performed include:

- Provided IMNCI training for 25 & 27 health professionals from Somalia and Afar regions respectively
- IMNCI training materials were revised to include recent global and national recommendations
- Orientation on major changes of the revised IMNCI guide was given for 22 Child Health Officers from all regions
- Printed and distributed 1,665 IMNCI registers
- Conducted IMNCI and ICMNCI program based supportive supervision in selected 8 woredas, 8 Health centers and 16 health posts in four agrarian regions and also conducted the feedback dissemination workshop

Table 8. Proportion of health centers providing IMNCI services by Region, 2012-2013 EFY

Region	Proportion of health centers implementing IMNCI	
	2012 EFY	2013 EFY
Tigray	100%	No update data
Afar	90%	92.8%
Amhara	91%	95.5%
Oromia	97%	99.4%
Somali	87%	85.6%
Benishangul- Gumuz	93%	94.8%
SNNP	98%	94.6%
Sidama	-	94.1%
Gambella	86%	89.7%
Harari	100%	100%
Dire Dawa	100%	100%
Addis Ababa	100.0%	94.9%
National	**95%**	**96**%

Essential Newborn Care (ENBC)

The following activities have been performed in 2013 EFY to improve essential care to newborns

- Trainings organized and provided to health care providers across all regions
- ENBC service quality monitoring activity was integrated into the catchment-based mentorship program
- Helping baby breath training was provided for 32 health care providers from Oromia and Addis Ababa

Neonatal Intensive Care Unit (NICU) Service

Expansion of advanced NICU service in hospitals was one of the major activities undertaken in 2013EFY. The following major activities and achievements were documented regarding NICU service

- At the end of 2013 EFY, 79 hospitals were equipped with Level III NICU equipment and made ready for level III NICU service. Supportive supervision was conducted for hospitals that received equipment for NICU level III service

- NICU Clinical mentorship conducted in 45 hospitals in Amhara Oromia, SNNPR Sidama Afar Benishangul Gumuz regions.
- gap filling training was provided for 233 NICU nurses.
- NICU KMC and L&D Clinical mentorship was conducted in 56 selected hospitals from Sidama, Amhara, Oromia SNNP Regions
- National assessment was conducted on NICU level III equipment and preventive and curative maintenance is planned per the result of the finding s
- NICU trainings were organized and provided to NICU nurses and other health care providers
- A virtual consultative meeting was conducted on NICU quality service improvement with 52 hospital CEOs, 33 NICU heads and 19 are MCH directors and child health focal persons
- Formative assessment on NICU, KMC L&D was conducted in 27 hospitals in Oromia, 18 hospitals in Sidama and SNNPR, 19 hospitals in Amhara and 10 hospitals in Tigray regions. Based on the findings of the assessment, procurement was ordered on the following medical equipment:- Digital weigh scale, neonate Oxygen nasal Prongs, Pulse oximeter and Oxygen concentrator and KMC wrap, gown and reclining chair Television
- Consultative workshop conducted on validation of Minimum care packages on NICU L&D and KMC
- Clinical mentorship TOT has been provided on NICU, KMC L& D Quality improvement for 176 Health care workers (48 SNNPR and Sidama, 47 Tigray, 52 Oromia, 29 Amhara regions)
- Conducted high level advocacy on world prematurity day celebration and documentary film developed radio and television spot message prepared and awareness creation activity conducted

Early Childhood Development (ECD) Intervention

Early childhood development is a multi-sectoral initiative that was initiated in 2011 EFY with the objective of providing young children with good health, adequate nutrition, security and safety, responsive caregiving, and the opportunity for early learning and development. It is to ensure that every child of Ethiopia relishes early childhood care, growth, development and education to be responsible, healthy, and productive citizens of good character.

The following are the main activities accomplished in 2013 EFY

- ECDE policy framework was revised in collaboration with MoLSA, MoWCYA and Ministry of Education (MoE)
- ECD content was integrated into the revised integrated refresher training (IRT) manual and in the preservice training curriculum of health care providers
- Advocacy on ECD was conducted using different opportunities such as review meetings and annual conferences
- A Five-year (2021-2025) sector specific strategic plan for health sector was developed
- A total of 12,000 ECD Job aids (counselling cards, key messages, and developmental milestone checklists) were developed, translated in to local languages and disseminated
- Contextualized Care for Child Development (CCD) training package was developed and technical assistance was provided for other sectors to contextualize the respective sector specific training package. Moreover, CCD trainings conducted for more than 200 health workers and 40 experts from other sectors i.e. education, women, children and youth affairs
- Technical supports for on job training and supportive supervision were provided for the Addis Ababa ECD project, which is led by the Addis Ababa mayor's office/AA city administration

- Media campaign in the form of TV and radio spots were conducted to improve awareness of the public on dealing with kids during pandemics; spend time with children at home and coping stress in kids and caregivers;
- Child Play corners were established in health facilities
- ECD is integrated in IMNCI, ECD messages integrated in mHealth platforms
- The ECD/NC implementation of Ethiopia has been documented and shared with the global communities via presentation and publication
- High level ECDE policy framework review and the Addis ECD project launch was conducted on 27th March, 2021

Documents, medical Supplies & Commodities for child health

- Even though adequate specification on the quality of amoxaciline DT was not obtained from the supplier to be purchased as per the 2013 FY quantification, an agreement was reached to extend the contract and order the purchase. On the ther hand, due to the delay in the purchase of ORS Zinc co pack by EPSA, an agreement was reached with NI to avail emergency supply. Additional budget allocated for the purchase of Zinc, ORS, TTC and A,oxacillin DT (250mg) was transferred to EPSA
- Child Health 2030 Roadmap final version was prepared and submitted for approval
- To complete contextualization guideline on ICMNCI for pastoralist regions and areas and its launching workshop was organized in collaboration with THDR project for a day
- Availed personal protective equipment (PPE) in under 5 OPD and paediatrics wards to maintain the essential child health services and demand generating activities.
- KMC wrap, KMC reclining chair kMC gown were procured and distributed to 74 hospitals
- Pulse oximetry, oxygen concentrator, infusion pumper, digitized weighing scale procured

Challenges

The following are some of neonatal and child health program-related challenges in 2013 EFY:

- The COVID-19 pandemic has negatively impacted the provision of Neonatal and child health services and on care-seeking for sick infants and children,
- Inadequate resource to fully rollout CBNC in all pastoralist regions and cascade the revised ICMNCI training
- Stagnant neonatal mortality despite the implementation of high impact community and facility-based interventions and the low attention given for neonatal mortality by the leadership
- Competing priority activities and untimely release of budget
- Shortage of human resource for newborn and child health program at all levels
- High turnover of trained health professionals
- Unavailability of some health workers on their duty during working hours
- Low uptake/utilization of some child health commodities e.g. Amoxicillin DT for newborn & childhood infections, Zinc DT for diarrheal diseases and Chlorhexidine gel for umbilical cord care
- Lack of sustainable domestic financing for child health program commodities
- An increasing trend in incidence of congenital anomalies such as neural tube defects
- Purchase of substandard/poor quality newborn and child health medical supplies, and lack of spare parts and no timely maintenance
- Shortage of essential child health drugs and sub optimal quality of services at some health facilities
- Lack of attention to newborn health activities at pastoralist areas

- Lack of local incidence data on newborn and childhood illnesses like Birth asphyxia, neonatal infections (PSBI), diarrhea and pneumonia
- Gap in availing quality health services for all newborns in many health facilities. Neonatal ICUs are also inadequately equipped and have yet to expand. The limited competency of midwives& nurses in the provision of emergency new born care 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 related to newborn care

Way forward

- Maintain provision of essential health service during the COVID-19 pandemic
- Strengthen the continuum of care in the life course approach for women and children
- Implement integrated ECD to make the newborn and child health interventions developmentally sensitive and address child health issues beyond survival.
- Strengthen integration of child-health training packages such as IMNCI in to pre-service curricula of health sciences colleges.
- Revision of basic newborn and child-health training packages such as NICU and IMNCI
- Conduct/strengthen program based and Integrated supportive supervisions
- Expansion of CBNC in Woredas that have not not yet initiated CBNC such as in Afar, Gambella and Somali regions
- Integrate implementation of child health focused catchment-based mentorship with the existing RMNCAYHN platform
- Strengthen evidence generation by research advisory committee (RAC) teams to support evidence-based decision making of Child Health program
- Continue capacity building activities in the form of trainings and mentorship(PRCMM) focusing on community & facility child health initiative (ICMNCI, IMNCI, ENC, NICU)
- Address the gap in capacity among health care providers in effectively utilizing new child-friendly formulations and commodities
- Ensure sustainable domestic funding for child health commodities
- Strengthen program ownership & sustainability at all levels.
- Strengthen the Supply chain management system for newborn and child health
- Improve supportive supervision and performance review meeting to ensure access to quality and equity services on newborn, infant and child health

3.5.3. Adolescent and youth Health Services

The proportion of health facilities providing Youth friendly services has increased to 46% in the reporting period. The teenage pregnancy rate among all those tested positive for pregnancy has decreased from 23% to 19.8%. This year, a five-year adolescent and youth health strategy (2021-2025) has been drafted and costed. A roadmap for Integrating Smart Start in Ethiopia (RISE) was launched in five regions (Amara, Oromia, SNNP, Afar and Somali). Besides, a youth and adolescence training Manual (e-learning) was developed and a 13 session module was converted to the learning Management system platform. A pilot training was also given to staff in the Human Resource Development Directorate. Moreover, a mobile app has also been developed and translated into six languages to make health information accessible to adolescent and youth population.

During the fiscal year, Adolescent and Youth forum was conducted under the theme "Let's work together for youth health" with presence of Honorable President Sahlework Zewde and higher official of Ministry of health and more than 1000 youth attended the forum. The forum was the first of its kind for the Ministry of Health and its partners as well as the youth to discuss the national efforts to improve the health of youth and adolescents.

In collaboration with key stakeholders, Adolescents Health Service Barrier Assessment (AHSBA) was conducted in five regions of Ethiopia.

Other Major activities of adolescent and youth Health

- MoH held a high-level consultation meeting with Industrial Parks Development Corporation (IDPC) on health service delivery & promotion to the youth employed under them
- Efforts have been made to improve the provision of quality youth and adolescent health services at youth centers. Supplies (such as weighing scale, first aid kits, wireless microphones & contraceptives) have been provided for youth centers clinics
- The Yene Tab Mobile App has been developed and made available in different languages (Amharic, English, Afan oromo, Tigrigna, Afar and Somali).
- In collaboration with the Ethiopian Institute of Public Health, more than 2,000 dignity kits and RH kits have been donated for people displaced for various reasons.
- A one-minute spot message on AY friendly health services has been broadcasted to the public twice a week on radio and television.
- In the year, 36 professionals working in 952 call centers, 24 female leaders selected from universities and more than 198 professionals were trained on youth and adolescent health.
- A review meeting and integrated supportive supervision on the implementation of the Youth and Adolescent Health Program was held

Challenges

- High turnover of trained AYH service providers at different health institutions
- COVID-19 affected the provision of youth friendly health service provision
- Shortage of budget for AYH program planning and implementation
- Weak structural organization at regional health bureaus which induce low accountability mechanism and collaboration
- Not including reproductive health issues/ information in the education curriculum design process

Way forward

- Strengthening the adolescent and youth health structures at all levels of the system
- Mobilizing and allocating adequate budget for AY health program implementation
- Strengthen inter-sectoral collaboration mainly with the Ministry of Education
- Enhancing conducive environment for adolescent and youth to access quality health-education and information
- Increase the number of facilities providing youth friendly health service to 48%.
- Strengthening and supporting youth and adolescent health services in industrial parks and development corridors
- Develop and expand best practices, capacity building of health professionals etc

3.6. Nutrition Program

In the past decade, Ethiopia has implemented the first and second national nutrition programs (NNPI and NNP II). With the implementation of the first and second NNPs, nutrition indicators showed improvement over the years. The prevalence of stunting, wasting and underweight in under 5 children has decreased over time. Stunting has decreased from 58% in 2000 to 37% in 2019. The prevalence of wasting and underweight has also been reduced from 12% and 41% in 2000 to 7% and 21% in 2019 respectively. Even though malnutrition has decreased over time in Ethiopia, the problem is still high. This shows that more effort is required to reduce malnutrition by implementing evidence based and effective nutrition interventions in the HSTP-II period.

Following the second NNP, Ethiopia has developed and endorsed food and nutrition policy in 2018 and developed a food and nutrition strategy, which will span for the period 2021-2030. The food and nutrition strategy aims to attain optimal nutritional status of the population at all stages of the life span and conditions to a level that is consistent with quality of life, productivity and longevity. It mainly focuses on implementation of high impact multi-sectoral nutrition interventions, through multi-sectoral collaborative activities tackling both nutrition specific and nutrition-sensitive challenges.

In this section, major nutrition-specific interventions and achievements in 2013 EFY, performed mainly by the health sector are described.

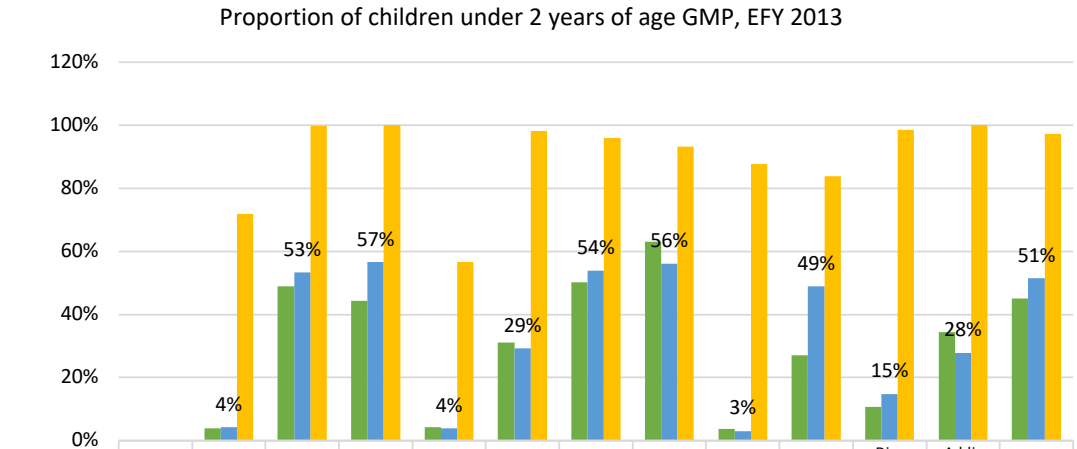
Implementation status of nutrition interventions

The health sector has implemented different nutrition interventions to prevent malnutrition, especially in pregnant and lactating women, and children specifically focusing on the first 1000 days nutrition. The major nutrition related interventions include growth monitoring and promotion and counselling services for all children under 2 years of age, vitamin A supplementation for children aged 6-59 months, deworming service for children aged 24-59 months of age, nutrition screening and treatment of malnutrition among under 5 children and PLW, iron and folic acid supplementation and other nutrition specific services. The major achievements and activities conducted in 2013 EFY are described below.

Growth Monitoring and Promotion

Growth monitoring and promotion service for children under 2 years is provided with the aim to identify inadequate growth early enough and reverse the problem with appropriate nutritional interventions. It focuses on children under 2 years of age when catch-up growth is possible if intervened for a growth problem. It uses regular community dialogue to engage community members to assess the overall nutritional status of children in their community, to understand the barriers and potential supports for improved nutrition, and to develop consensus on plans of action to make a difference.

In 2013 EFY, more than 2.5 million (51%) of children under 2 years of age received growth monitoring and promotion service. This performance is lower than the baseline and much lower than the target for 2013 EFY (target was 97%). The performance of GMP is the lowest in Afar, Somali, and Gambella regions, where GMP coverage is below 10%. Compared to the target set for 2013 EFY, no region has achieved the 2013 target.

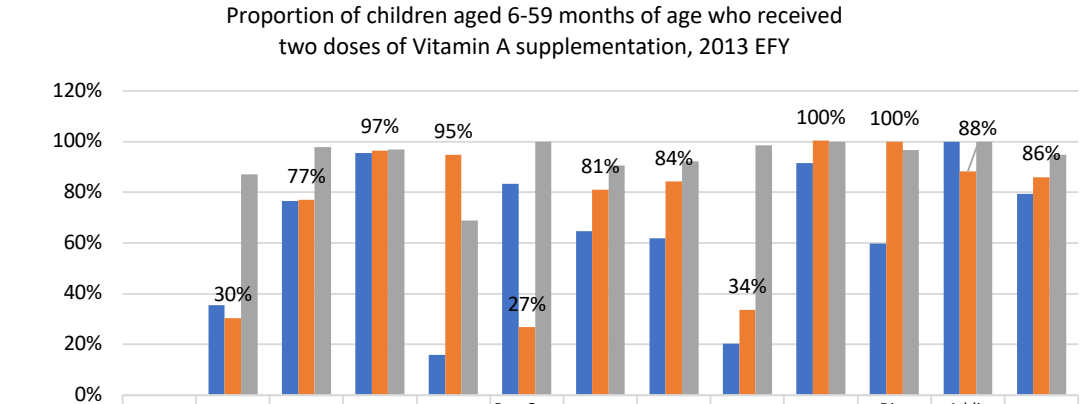


	Tigray	Afar	Amhara	Oromia	Somali	B/Gumuz	SNNPR	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
Baseline		4%	49%	44%	4%	31%	50%	63%	4%	27%	11%	34%	45%
Performance		4%	53%	57%	4%	29%	54%	56%	3%	49%	15%	28%	51%
Target		72%	100%	100%	57%	98%	96%	93%	88%	84%	99%	100%	97%

Figure 18. Proportion of children under 2 years of age that received GMP service, 2013 EFY

Vitamin A Supplementation

Supplementation of children aged 6-59 months of age with two doses of vitamin A every year is one of the key nutrition interventions to eliminate Vitamin A deficiency and its consequences. In 2013 EFY, more than 11 million (86%) children aged 6-59 months received two doses of vitamin A. This performance is higher than the previous year's performance (79%) but lower than the target for 2013 EFY (97%). There is a regional disparity in Vitamin A supplementation, ranging from 27% in Benishangul Gumuz region to 100% in Harari and Dire Dawa.



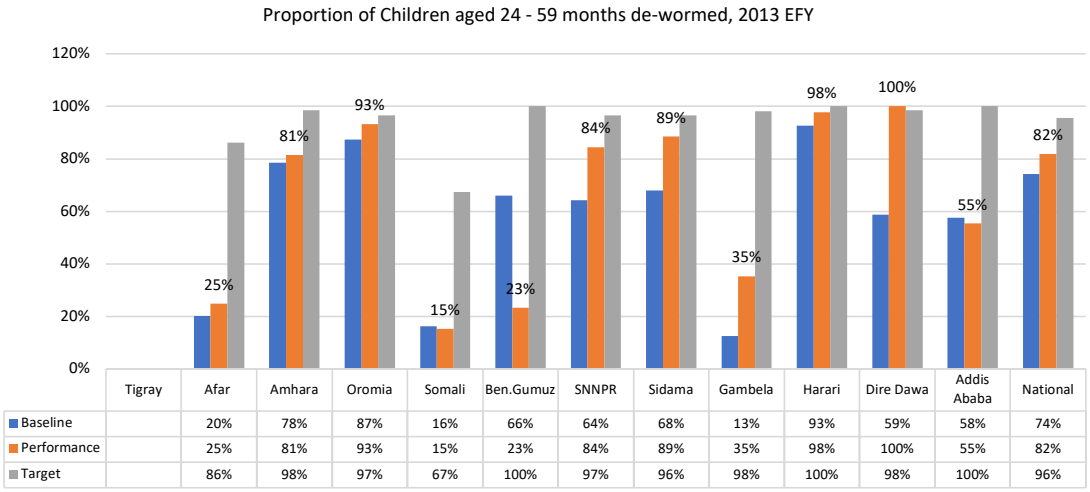
	Tigray	Afar	Amhara	Oromia	Somali	Ben.Gumuz	SNNPR	Sidama	Gambela	Harari	Dire Dawa	Addis Ababa	National
Baseline		35%	77%	96%	16%	83%	65%	62%	20%	92%	60%	100%	79%
Performance		30%	77%	97%	95%	27%	81%	84%	34%	100%	100%	88%	86%
Target		87%	98%	97%	69%	100%	91%	92%	99%	100%	97%	100%	95%

Figure 19. Proportion of children aged 6-59 months of age who received two doses of Vitamin A supplementation

Deworming service

Deworming children aged 24-59 months of age with Albendazole twice a year is one of the nutrition interventions implemented in Ethiopia. In 2013 EFY, more than 7.7 million (82%) children aged 24-59 months received bi-annual deworming service. This performance is higher than the previous year's performance (74%) but lower

than the target for the fiscal year (96%). The lowest performance is reported in all the four special support regions; Somali (15%), Benishangul Gumuz region (23%), Afar (25%) and Gambella region (35%).



	Tigray	Afar	Amhara	Oromia	Somali	Ben.Gumuz	SNNPR	Sidama	Gambela	Harari	Dire Dawa	Addis Ababa	National
Baseline		20%	78%	87%	16%	66%	64%	68%	13%	93%	59%	58%	74%
Performance		25%	81%	93%	15%	23%	84%	89%	35%	98%	100%	55%	82%
Target		86%	98%	97%	67%	100%	97%	96%	98%	100%	98%	100%	96%

Figure 20. Proportion of Children aged 24 - 59 months de-wormed, 2012 EFY

Other major nutrition achievements and activities

Major activities

In addition to implementation and achievements on the above nutrition interventions, the following major activities have been performed in 2013 EFY:

- Costed ten-year National Food and Nutrition Strategy (2021-2030) is developed, endorsed by the National Nutrition Coordination Body (NNCB)
- A comprehensive and integrated nutrition service package and its implementation guideline is developed, approved and disseminated for pastoralist and agro-pastoralist areas
- A proclamation on the establishment of food and nutrition council and agency was finalized and submitted to the office of the prime minister for approval
- Food and Nutrition resource mapping was conducted, report compiled and utilized for the food and nutrition strategy
- Emergency nutrition preparedness, response and rehabilitation support provided to IDP sites, areas with manmade and natural disasters
- Operational guideline on infant and young child feeding in Emergencies (IYCF-E) was developed and familiarized to regions and other stakeholders through a consultative workshop. A joint statement was signed and launched with the presence of all implementing parties (MoH, NDRMC, UNICEF, WHP,WHO)
- A family-MUAC approach kick off was conducted in Somali region, a national guideline was prepared and translated into six local languages
- Different capacity building nutrition related trainings were provided. More than 90 media and public relation professionals were trained on Global and National nutrition situation, and on basics of food and nutrition policy landscapes. More than 30 regional nutrition coordinators were provided with training of trainers' course on developmental nutrition/Maternal, Infant and Young Child Nutrition (MIYCN) training. In addition, nutrition leadership training for 30 national and regional nutritional leaders and training on the revised acute malnutrition guideline was provided to regional and national nutrition experts and coordinators

- World breast feeding week was celebrated at national and regional level through panel discussions, message dissemination via TV/Radio spots, preparing and printing banners, brochures, stickers, masks, media packages, media trainings etc
- 14 health facilities were recognized for successfully implementing Baby Friendly Hospital/Health Facility Initiative (BFHI)
- As part of an awareness creation activity, TV and radio spot nutrition messages were prepared in three languages and broadcasted in four regional television and radio stations for three months
- Supportive supervision, bi-annual review meeting, technical and financial support was provided to nutrition program implementing health institutions

Challenges

- Weak multi-sectoral food and Nutrition coordination and linkages, accountability, and ownership among FNS implementing sectors at all levels
- Delayed endorsement of the proclamation for Food and Nutrition council and Agency establishment
- Inadequate lower-level structure and human resource for food and Nutrition
- Inadequate budget for food and Nutrition from government treasury
- Poor coordination and utilization of budget from partners, low donor attention for developmental nutrition interventions, more focus to emergency nutrition
- Occurrence of frequent emergency situations due to insecurity and instability in different parts of the country
- The COVID-9 pandemic affect provision of different nutrition services

Way forward

- Strengthen the provision of GMP, vitamin A supplementation, deworming and other existing nutrition interventions
- Improve adolescent, maternal and child nutrition through 1000 days plus nutrition service delivery
- Ensure the operationalization of food and nutrition strategy (FNS) at all levels
- Ensure the availability of food and Nutrition supplies and commodities at health facilities
- Build the capacity of program managers, leaders, HWs, HEWS and others though various capacity building trainings
- Advocate the endorsement of a proclamation for the establishment of Food and Nutrition council and Agency
- Advocate for the establishment of Nutrition directorate at MOH, establishment of appropriate structure at national and among regional levels across sectors and levels
- work to improve the Monitoring and evaluation platform for FNS implementation
- Update National Guidelines, training manuals, job aids, using the FNS
- Improve partnership and resource mobilization for FNS implementation
- Continue advocacy, social mobilization, and interpersonal communication through various media outlets

3.7. Seqota Declaration implementation

Seqota declaration (SD) is government of Ethiopia's high-level commitment to end stunting in children less than two years by 2030. Seqota Declaration builds on and accelerates the implementation of the food and nutrition strategy. It has a 15-year roadmap which is divided into three phases, each spanning a period of five years.

- **The innovation phase (2016-2020)** focuses on the implementation of priority nutrition-specific and nutrition-sensitive and infrastructure intervention packages. It is implemented in 40 woredas, involving nine sectors/ministries.

- **The expansion phase (2021-2025)** builds on learnings from the innovation phase. Launching of the expansion phase was conducted for additional 200 woredas and the eexisting 40 woredas, making the total SD Woredas to 240. At the end of this phase, the plan ios to increase the number of SD implementing Woredas to 700.

- **National scale-up phase (2026-2030)** The National scale up involves full-blown implementation of evidence-based, innovative and socially-sensitive multi-sectoral interventions. It will include previously unreached Woredas

Seqota Declaration is expected to be achieved through coordinated multi-sectoral and multi-stakeholder efforts made in areas of food security, maternal and child health care, improving access to health services, creation of a healthy environment, and addressing the root causes of under nutrition. In this regard, the government is strongly committed to making investments to end stunting by focusing on pro-poor and service-focused sectors. The multi-sectoral investment plan also provides a framework for government and development partners to allocate resources to ensure nutrition security in the country where Stunting is a marker and maker of development. The Seqota Declaration Program Delivery Unit (PDU) in collaboration with the federal and regional sectors and implementing partners have developed a multi-sectoral costed woreda investment plan for the innovation and expansion phase of Seqota Declaration.

Financing the expansion and scale up phases: source of financing is believed to be government (federal and Regional), Development partners, private sector and the community. The total Investment for the period of Expansion phase is estimated to be 84,752,112,929 Birr and 59,669,262,671 Birr for scale up phase.

Major activities and achievements in 2013 fiscal year

- The expansion phase of SD was approved by a high-level meeting and regions were communicated to make themselves ready for the implementation of the expansion phase. Accordingly, expansion phase for 240 Woredas was launched at the beginning of the 2014 EFY in the presence of H.E president Sahle-Work Zewde, Regional presidents, Regional bureau heads and other stakeholders. Besides, the 10 years' expansion and scale-up phases' investment plan is currently on preparation

- Review meetings with regions and stakeholders were organized and conducted in 2013 EFY. Accordingly, two federal level multi-sectoral review meetings, two multi-sectoral technical and partner review meetings, four quarterly SD program delivery-unit review meetings and two learning visits to SD woredas in Amhara region were conducted

- Processed the approval of the African Development Bank Financed Project called Multi-Sectoral Approach for Stunting Reduction Project (MASREP), a 48 million $ project. The project was approved in April 2013 EFY. The project is already launched and project staffs have been recruited

Figure 21. Multi-sectoral approach for stunting reduction project (MASREP) approval ceremony in April 2013 EFY

- **Implementation status of the Seqota declaration Innovations**

  1. **Community Lab:**

     In 2013 EFY, community lab was implemented in 24 Seqota declaration Woredas. This innovation identified a number of local solutions to improve diet diversity. Based on this, 1093 pregnant and lactating women are using Key Hole gardening technologies in Debark Woreda and the adjacent 18 kebeles by growing different vegetables and feed their under-two children. Similarly, communities in Ebinat woreda started feeding their children a goat milk. In addition, Nader Adet woreda communities started to eat pumpkin, a foodstuff that was used only to feed animals in the past years.

  2. **Data innovation**

     Unified nutrition Information System in Ethiopia (UNISE) guidelines including indicator definitions, operational guideline were developed printed and distributed in two regions.

     Computers were distributed for eight UNISE implementing Woredas and training were given for Sector nutrition focal persons at all levels. A continuous onsite technical support and orientation was provided for the Woredas. Currently, UNISE is implemented in 6 sectors per Woreda. The sectors include Health, Agriculture, Women, youth and children, Social and Labor Affairs, Water Irrigation and Energy and Education sector. Based on this, sectors were enabled in multi-sectoral data capturing, data entry, analysis, visualization and utilization for evidenced based decision-making.

  3. **The 1000 days plus public movement**

     In the fiscal year, Seqota declaration Food and Nutrition Documentation portal is established (http://food-nutrition.moh.gov.et/). Multi-sectoral SBCC mainstreaming guideline was prepared and distributed for Seqota Declaration implementing regional sectors. Radio spots were produced to promote face and hand washing practice of the community. Documentary that aims to show community testimony on changes made by Seqota Declaration investment was prepared and shared for stakeholders.

- **Coordinating Implementation of Super school of five (SSo5): This** program was implemented with the leadership of Ministry of Education (MoE) in 287 primary schools in Amhara and Tigray, through which 106,790 students were reached. The program has improved hygiene and sanitation practices (hand and face cleanliness improved, eye infections reduced, scabies cases reduced) and resulted in a huge increase in access to water and hand and face washing stations (In Tigray region, from 0% to 72%; In Amhara region from 40% to 60%). A model/guideline was developed for the adaptation of the program in the curriculum and for its national scale up by the MoE.

- **Impact study on the Seqota Declaration Innovation Phase** was conducted jointly with Johns Hopkins University with financial support from Big Win using Lives Saved Tools (LiST) methodology. The result of the impact study showed that the Innovation Phase interventions prevented almost 1,031 children deaths and averted over 109,831 stunting cases of under 5 years old children in both regions where SD was implemented (Amhara and Tigray).

Table 9. Number of stunting cases averted (0-59 months) during the innovation phase of Seqota Declaration

Region	Category	Age group	2018	2019	2020	2021
Tigray	**# of stunting cases averted (0-59 m)**	*0-23m*	-	10,047	11,467	12,196
		24-59m	-	342	6,771	14,934
		Sub-total	-	10,389	18,238	27,130
Amhara	**# of stunting cases averted (0-59 m)**	*0-23 m*	-	10,219	11,457	11,977
		24-59m	-	280	6,270	13,871
		Sub-total	-	10,499	17,727	25,848
Innovation Phase - Stunting cases Averted (0-59 m)		**Total 0 - 23-m**	-	20,266	22,924	24,173
Total 24-59 m		**-**	622	13,041	28,805	
Total/year		**-**	20,888	35,965	52,978	
Innovation Phase (2018 - 2021)		**109,831**				

Table 10. Number of lives saved during the innovation phase of Seqota Declaration, by year

	2018	2019	2020	2021	2022	2023
Tigray						
0 – 5 m	0	40	45	54	55	56
6 - 23 m	0	83	100	106	109	109
24-59m	0	17	33	40	47	49
Total (0-59 months)	0	140	178	200	211	214
Amhara						
0 – 5 m	0	46	44	57	56	56
6-23 m	0	82	97	102	102	101
24-59m	0	16	32	37	43	44
Total (0-59 months)	0	144	173	196	201	201
Total, both regions (0-59 months)	**0**	**284**	**351**	**396**	**412**	**415**
Total lives saved during the innovation Phase (Amhara and Tigray)	1,031 (During innovation phase-2018-2021)					

Major challenges

- The security situation in Northern part of Ethiopia delayed the implementation of the planned activities in Seqota Declaration Woredas in 2013 EFY
- The INSA customs clearance process delayed the installation of the second round imported Yazmi technology

Way forward

- Implement SD expansion phase in 240 Woredas, and provide technical and financial support for its implementation
- Recruit additional manpower that supports the expansion phase and mobilize resources to initiate Seqota Declaration program in Sidama regional state
- Formulate and expand innovation phase best practices and complete unfinished SD innovations
- Implement the first year MULTI-SECTORAL APPROACH FOR STUNTING REDUCTION PROJECT (MASREP), the new project that is supported by African Development Bank

3.8. Prevention and Control of Communicable Diseases

In this section, the major activities and achievements on the prevention and control of major communicable diseases are discussed. It includes HIV prevention and control program, Tuberculosis and leprosy prevention and control program and Malaria prevention and control programs.

3.8.1. HIV Prevention and Control Program

HIV infection is one of the global public health challenges causing high morbidity and mortality. It is also one of the public health concerns of Ethiopia. In Ethiopia, since its first detection in 1984, HIV/AIDS has claimed the lives of many and has left hundreds of thousands as orphans. The government of Ethiopia took several steps in preventing further disease spread, and in increasing accessibility to HIV care, treatment and support for persons living with HIV. According to the National HIV Related Estimates and Projections (2020), the national adult (15- 49) HIV prevalence is 0.96 %. It also shows that the HIV prevalence varies from region to region ranging from less than 0.15% in Somali to 4% in Gambella.

HIV prevention and control is one of the priority health programs identified by the second Health sector Transformation Program (HSTP-II). HIV/AIDS national strategic plan for the years 2021-2025 is developed with the goals of attaining HIV epidemic control and reducing new HIV infections and mortality due to AIDS. The strategic plan targets to achieve the three 95-95-95 targets of HIV. It specifically targeted to achieve 95% of all people living with HIV to know their HIV status, 95% of all people with diagnosed HIV infection to receive sustained antiretroviral therapy and 95% of all people receiving antiretroviral therapy to have sustained viral suppression by the end of the HSTP-II period. In order to achieve the HIV/AIDS related targets, various HIV/AIDS response interventions have been implemented in 2013 EFY, the first year of the HSTP-II period. The major HIV prevention and control interventions include pre-exposure prophylaxis of HIV (PrEP), Voluntary medical male circumcision (VMMC) service in Gambella region, HIV testing and counselling service, STI prevention and treatment, HIV care and treatment, TB/HIV coinfection management, multi-sectoral HIV/AIDS response interventions and others. In this section, the key HIV prevention and control program activities, achievements and challenges in 2103 EFY are discussed.

Note: Since there were no reports from Tigray region for more than 9 months in the fiscal year, the national performance report does not include Tigray region. Plan versus target is discussed without Tigray region. Tigray's 1st quarter performance is dealt separately. A separate section is available for all the major responses in Tigray region.

HIV Testing and Counselling Service (HTS)

HIV testing and counselling service has been provided to identify HIV new positives, which is key in achieving the first 95 target. Testing and counselling services have been provided through Voluntary Counselling and Testing (VCT), Provider initiated testing and counselling (PITC) and index case testing (ICT) service modalities.

In 2013 fiscal year, the plan was to test 7,386,629 individuals (excluding Tigray region) but the annual performance shows that 7,237, 175 individuals (98% of the plan) were provided with HIV counselling and testing service. Regarding the number of new HIV positives identified, the 2013 EFY plan was to identify 75,228 new positives (in all regions except Tigray). The annual performance shows that 33,988 new individual were identified, which is 45% of the target. The national HIV positivity yield is 0.47%. The highest positivity yield is in Gambella region, with a positivity of 4.76%. The lowest positivity yield is in Sidama region, with a positivity yield of 0.20%. The testing performance is performed as per the plan but identification of new positives is less than 50% of the target for the fiscal year. This indicates that the program should strengthen targeted testing modalities to identify more number of HIV positives in the next fiscal year. Regarding testing performance, four regions (Oromia, Sidama, Harari and Addis Ababa) have tested more than their target for the fiscal year. Even if Gambella region has the lowest proportion of people tested compared to its target for the fiscal year, the highest positivity yield was observed in Gambella region, with 4.76% of yield, which indicates that targeted testing is properly implementing in the region. However, the lowest positivity yield was observed in Sidama region, with a positivity yield of 0.20%. In terms of identifying new positives, Afar and SNNP regions performed better (81% and 60% of the target respectively), while the lowest achievement is in Dire Dawa city administration (identified 17% of the planned new positives).

Table 11. Number of people tested for HIV and number of new positives identified (2013 EFY Plan versus achievement), by region

Region	No. of people tested for HIV			Number of new HIV positive Identified			
	2013 EFY Target	Achievement		2013 EFY Target	Achievement		Yield
		Number	Percent		Number	Percent	
Afar	129,123	105,770	82%	1,343	509	38%	0.48%
Amhara	1,770,384	1,482,108	84%	22,661	9,006	40%	0.61%
Oromia	2,716,040	3,502,897	129%	17,654	9,848	56%	0.28%
Somali	315,617	118,834	38%	505	289	57%	0.24%
B/Gumuz	120,615	78,202	65%	1,037	226	22%	0.29%
SNNP	1,302,411	996,818	77%	5,860	3,522	60%	0.35%
Sidama	304,420	354,455	116%	2,265	694	31%	0.20%
Gambella	150,051	34,504	23%	6,677	1,642	25%	4.76%
Harari	23,785	38,911	164%	707	316	45%	0.81%
Dire Dawa	65,168	45,794	70%	2,033	344	17%	0.75%
Addis Ababa	396,569	467,931	118%	13,562	7,466	55%	1.60%
OGAs	92,446	10,951	12%	924	126	14%	1.15%
National	7,386,629	7,237,175	98%	75,228	33,988	45%	0.47%

Tigray Region: In the first quarter of 2013 EFY, 102,232 individuals were tested for HIV in Tigray. Among the tested, 476 (0.47%) were tested positive for HIV. Except for the first quarter report, there is no report about the performance of the region.

As the HTS is a targeted approach focusing on Key and Priority populations, the highest yield is observed on partners of PLHIV, FSWs and children of PLHIV followed by Long distance drivers.

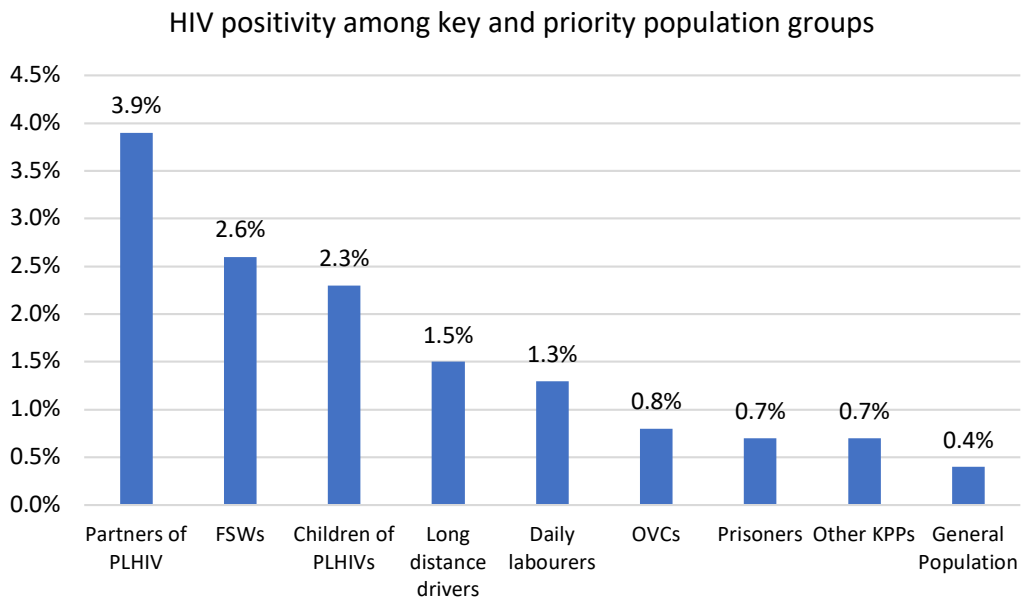


Figure 22. HIV positivity among key and priority population groups, 2013 EFY

In order to improve HIV case identification and link the identified positives to HIV care and treatment services, Ministry of Health has started an initiative called Replicate Operation Triple A (RoTA) initiative in second quarter of 2013 EFY. All regions except Tigray have developed a RoTA action plan and started working on the RoTA initiative. Accordingly, there was an improvement on case identification or yield (increased from 0.5% to 1.4%) when compared with the same period of 2012EFY. According to 2013 EFY first six months report (before RoTA) there were only 12,703 new positives identified (0.5% yield) while the national case finding performance and yield was increased to 21,869 in the second six months or after RoTA was implemented. This is an increment of new positives identification by 9,166 in the second 6 months. RoTA has improved data use and performance review practice. Strong leadership commitment at different levels contribute to the success of RoTA initiative.

In addition, HIV self-test service was also provided in 2013 EFY. In the fiscal year, 26,259 self-test kits were distributed for HIV self-test service (using both directly assisted and unassisted HIV self-test modalities). In order to expand HIV self-testing service in the next fiscal year, 500,000 self-test kits were procured and distributed to regions.

HIV care and treatment services

The 2020 HIV related estimates and projections for Ethiopia shows that the estimated number of people living with HIV is 622,326 (among which 238,546 (38%) are male and 383,780 (62%) are females). Among the total estimates of PLHIV, 578,188 (92.9%) are adults and 44,138 (7.1%) are children under 15 years of age.

At the end of 2013 EFY, a total of 441,464 PLHIVs were receiving Antiretroviral Therapy (ART). Before October 2013 EFY, more than 43,000 PLHIVs in Tigray region were receiving ART, but no report was received from Tigray region since then. Consecutively, the number of PLHIVs currently on ART at the end of the 2013 EFY includes PLHIVs from all regions but not from Tigray region. Therefore, the estimated versus performance on ART is done excluding data from Tigray region.

The estimated number of PLHIVs in 2020 is therefore 573,273 (The estimated in Tigray (49,053) is subtracted from the national (622,326).

From the estimated 573,273 PLHIVs, 441,464 were receiving ART at the end of 2013 EFY, which shows that 77% of the estimated PLHIVs were currently on ART. Among the total PLHIVs currently on ART in 2013 EFY, 426,967 were adults and 14,497 were children under 15 years of age.

Table 12. Number and percentage of PLHIV currently on ART disaggregated by age, 2013 EFY

No TIGRAY Data	Estimated PLHIV in 2013 EFY (Disaggregated by Age)			Currently on ART in 2013 EFY (Performance, disaggregated by age)			ART coverage (From total estimated PLHIV)		
Region	Children (<15)	Adults (>=15)	Total	Children (<15)	Adults (>=15)	Total	Children (<15)	Adults (>=15)	Total
Tigray									
Afar	1,372	10,618	11,990	82	4308	4,390	6%	41%	37%
Amhara	13,031	179,613	192,644	4468	141168	145,636	34%	79%	76%
Oromia	13,703	138,588	152,291	5194	111620	116,814	38%	81%	77%
Somali	766	4,896	5,662	78	1874	1,952	10%	38%	34%
B/Gumuz	352	5,723	6,075	156	3936	4,092	44%	69%	67%
SNNPR	3,890	43,483	47,373	1489	31557	33,046	38%	73%	70%
Sidama	1,921	18,344	20,265	469	9664	10,133	24%	53%	50%
Gambela	1,215	12,290	13,505	276	5707	5,983	23%	46%	44%
Harari	224	4,987	5,211	87	4137	4,224	39%	83%	81%
Dire Dawa	485	10,635	11,120	137	6618	6,755	28%	62%	61%
Addis Ababa	3,392	103,634	107,026	1823	98891	100,714	54%	95%	94%
OGFs			0	238	7,487	-			
National	40,351	532,811	573,162	14,497	426,967	441,464	36%	80%	77%

NOTE: In Tigray region, 43,208 PLHIVs (41875 and 1482 children under 15) were receiving ART at the end of Meskerem 2013 EFY. There is no report about these PLHIVs since then due to insecurity problem in the region

Disaggregated by age, from the total estimated adult PLHIVs, 80% of the estimated adult PLHIVs were receiving ART while only 36% of estimated children under 15 years of age were receiving ART. This shows that the proportion of children who are receiving ART from the total child PLHIVs is low. There is an inequity in ART service provision among adults and children. This requires intensifying case identification, care and treatment interventions to increase the proportion of children receiving ART and close the age equity gap.

Viral load testing service

In the fiscal year, 358,109 PLHIVs on ART were tested for viral load. This shows that 81% of PLHIVs were tested for viral load in the fiscal year. From the total PLHIVs tested for viral load, 340,379 (95%) of them had suppressed viral load (<1000 copies/ml). High viral load suppression is not only good for the health of the individual PLHIV but also for the health of the others in the community. High viral load reduction is also an indication that there is high retention and adherence to ART treatment. The proportion of PLHIVs with viral load suppression has improved over the years, increasing from 89% in 2011 EFY to 91.4% in 2012 EFY and 95% in 2013 EFY. In addition, improvement is also observed in terms of increasing the viral load testing coverage through various demand creation efforts.

The 95-95-95 HIV/AIDS performance

First 95 performance

The first 95 HIV target states that 95% of all people living with HIV will know their HIV status (95% diagnosed). The status of the first 95 can best be determined through community-based survey. In Ethiopia, the latest community based survey on knowing HIV status was done in the 2016 Ethiopian Demographic and Health Survey (EDHS). The 2016 EDHS report showed that among people who are living with HIV, 78.7% of them have ever been tested for HIV and know their positive status. Since this is a bit old data and there is no other survey that was conducted in recent years, the first 95 performance can be estimated from the routine HMIS data. The number of people who know their status can be computed by summing the following data elements from the routine HMIS report.

- Number of people who were receiving ART at the end of 2013 EFY (Rx_CURR)
- Number of PLHIV who are documented as lost/lost to follow up in 2013 EFY (LTFU), since these people know their status
- Number of new HIV positives identified in the last month of 2013 EFY (New positives in Sene 2013)

Accordingly, the numerator for the first 95 target will be the sum of treatment current (441,463) + number who were lost to follow up in 2013 EFY (17,383) + new positives in Sene 2013 (3,414). This sum up to 462,261, which is the number of people who know their status. This means that 462,261 people (81%) from the estimated 573,162 PLHIVs (not including Tigray) know their status. Therefore, the first 95 target is estimated to be 81%.

To increase the number of people who know their HIV status and achieve the first 95% target, different initiatives has been implemented in the fiscal year. Some of the initiatives and major activities that have been implemented in 2013 EFY include:

- The HIV testing strategy focused on targeted groups who are at risk of HIV infection. The national testing strategy focused on key and priority populations for targeted HIV testing, including female sex workers (FSWs) and their sexual networks, children of PLHIV, OVC, long distance truck drivers, mobile/ daily laborer and other MARPs. In 2013 EFY,mMore than 7.2 million individuals were tested for HIV, among which 33,988 new positives were identified.
- HIV testing algorithm, which is “Three-Test Algorithm”, was implemented in the fiscal year in order to minimize false negative HIV result (by enhancing the positive predictive value of the test)
- Innovative HIV testing services (HTS) approaches were introduced to increase HIV test uptake and testing efficiency/yield. The innovative approaches include optimization of provider-initiated testing and counseling (PITC) by utilizing risk screening for high-risk groups or individuals, providing HIV recency testing services, introducing HIV self-testing (HIVST) service, and implementation of index testing and/or partner notification services.
- A minimum standard guideline for index testing was prepared and implemented in order to optimize the quality of the service
- By taking lessons from Addis Ababa’s accelerated plan called Triple A for improved HIV case identification, MOH has started implementing replication of the triple A approach to other regions of Ethiopia. The initiative is called Replicate Triple A approach (RoTA).
- Streamlined and integrated HIV rapid test kits (RTKs) with the existing national logistics system considering the peculiarities of the product

Second 95 Performance

The second 95 HIV target aims that 95% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (95% PLHIVs who know their status will be on HIV treatment). To compute the second 95 target, the numerator is the number of the PLHIVs who are currently receiving ART. The denominator for the second 95 target can be computed using two scenarios: 1) considering the target for the first 95, which is 95% of the estimated PLHIVs; 2) considering the mere 95-95-95 cascade from the first 95 achievement, i.e, 81% of the estimated PLHIVs (as estimated from the HMIS data)

Using the denominator from the first 95 target (i.e, 95% of the estimated PLHIVs know their HIV status), the performance of the second 95 target is 81%.However, since we estimated the first 95 performance as 81% (as described above), the performance of the second 95 is 95% (adults 99% and Children 44%). Addis Ababa, Harari and Oromia regions have achieved the second 95 target, and Amhara region is at 93%, which is close to the target. The second 95 performance in the other regions is low, with the lowest achievement in Somali and Afar regions (43% and 45% respectively).

Table 13. 2nd 95 using 81% (first 95 result) of PLHIVs as denominator, 2013 EFY

Region	Estimated PLHIV in 2012 EFY (Disaggregated by Age)			Numerator: No. of PLHIVs currently on ART in 2013 EFY			Denominator - Calculated 81% of the total PLHIVs [i.e. the 1st 95 result]			2nd 95 performance using 1st 95 result as denominator		
	Children (<15)	Adults (>=15)	Total	Children (<15)	Adults (>=15)	Total	Children (<15)	Adults (>=15)	Total	Children (<15)	Adults (>=15)	Total
Tigray												
Afar	1,372	10,618	11,990	82	4308	4,390	1,111	8601	9,712	7%	50%	45%
Amhara	13,031	179,613	192,644	4468	141168	145,636	10,555	145487	156,042	42%	97%	93%
Oromia	13,703	138,588	152,291	5194	111620	116,814	11,099	112256	123,356	47%	99%	95%
Somali	766	4,896	5,662	78	1874	1,952	620	3966	4,586	13%	47%	43%
B/Gumuz	352	5,723	6,075	156	3936	4,092	285	4636	4,921	55%	85%	83%
SNNPR	3,890	43,483	47,373	1489	31557	33,046	3,151	35221	38,372	47%	90%	86%
Sidama	1,921	18,344	20,265	469	9664	10,133	1,556	14859	16,415	30%	65%	62%
Gambela	1,215	12,290	13,505	276	5707	5,983	984	9955	10,939	28%	57%	55%
Harari	224	4,987	5,211	87	4137	4,224	181	4039	4,221	48%	102%	100%
Dire Dawa	485	10,635	11,120	137	6618	6,755	393	8614	9,007	35%	77%	75%
Addis Ababa	3,392	103,634	107,026	1823	98891	100,714	2,748	83944	86,691	66%	118%	116%
OGAs				238	7,487	7,725	-		-			
National	40,351	532,811	573,162	14,497	426,967	441,464	32,684	431577	464,261	44%	99%	95%

To improve the performance of the second 95 target, the following major initiative/activities were performed in 2013 EFY.

- Strengthened the provision of care and support services, including ART service at all hospitals and majority of health centers and private health facilities
- Implemented health facility and community-based differentiated models of HIV care (appointment spacing, Fast Track ART refill and multi-month drug prescribing). Community base service delivery options for HIV treatment, such as health care worker managed community DSD model, and peer lead community-based models were implemented to ensure continuity of care, especially during the COVID_19 pandemic

- Implemented new optimized ART regimens: As a continued effort to improve quality of HIV care and treatment, new ART medicines were introduced. Dolutegravir (DTG) and LPV/r drugs were introduced as part of the ART medicines following the inclusion of the medicines in the 2018 edition of the national comprehensive HIV prevention, care and treatment guideline.
- Provision of second line ART drugs were initiated at selected high load health centers.
- Site expansion of third line ART providing centers was done in the fiscal year. The number of sites providing third line treatment was increased from 35 to 50 sites based on the second line client load and geographical accessibility

Third 95 Performance

The third 95 target aims that 95% of all people receiving antiretroviral therapy to have a viral suppression. In 2013 EFY, from the total 441,464 PLHIVs who were receiving ART, viral load test was performed to 358,109 PLHIVs, among which 340,379 (95%) of them were virally suppressed (<1000/ml). This shows that 81% of PLHIVs on ART were tested for viral load and 95% of them had viral suppression. UNAIDS recommends to estimate the numerator for the third 90 based on the routine viral load test report when the proportion of PLHIVs who are currently on ART and tested for viral load is between 50% and 90%. Accordingly, the numerator for the third 95 target will be estimated as (Viral load-suppression rate from routine test)*(PLHIVs who are currently on ART), which is 95%*426,967 = 419,607. This means that estimated number of PLHIVs who have suppressed viral load is 419,607. Therefore, the numerator for the third 95 is 419,607 and the denominator is the number of people who are currently on ART (441.464). This gives the performance of the third target to be 95%.

To increase viral load testing coverage and improve the performance of the third 95 target, 20 laboratories were providing viral load testing service throughout the country. As part of viral load testing scale up program; an agreement was made with the laboratory companies (Abbot and Roche) on equipment placement (as part of reagent cost) and upgraded to automated extraction. Moreover, strengthened counselling service to PLHIVs on ART has contributed to better achievement in viral suppression.

Other Major activities and achievement in 2013 EFY

In addition to the above mentioned major HIV prevention and control program activities and achievements, the following major initiatives/activities were performed in 2013 EFY

- **Sexually Transmitted Infections (STIs):** In 2013 EFY, 262, 400 diagnosed STI cases were diagnosed and treated. From the total 262,400 STI cases, 223470 (85%) were tested for HIV. HIV positivity rate among STI cases was 2.6%. There were around 5,690 new HIV cases identified from STI cases, which accounts for 17% of the total new HIV positives.

- **Pre-Exposure Prophylaxis of HIV (PrEP):** Provision of Pre-Exposure Prophylaxis (PrEP) to population groups with substantial HIV risk is one of the biomedical HIV prevention methods that can have a significant impact to further decrease the transmission of HIV. In 2013 EFY, PrEP service has been provided in all ART providing health facilities. In the fiscal year, PrEP service was provided to 12,719 individuals (10,781 female sex workers and 1,938 sero-discordant couples).

- **Voluntary Medical Male Circumcision (VMMC):** VMMC is one of the public health prevention interventions to reduce the incidence of HIV in places where HIV incidence is high with low male circumcision. In this regard, VMMC service was provided in Gambellla region in collaboration with different stakeholders. In 2013 EFY, 35,920 individuals received VMMC service. Among those who were provided with VMMC service, 29,962 of them were tested for HIV and 21 were tested positive for HIV and linked to treatment.

- **HIV Case Based Surveillance (CBS):** In the fiscal year, CBS strengthening activities were performed including, CBS implementing site expansion, laboratory quality improvement and strengthened case based data visualization and use for decision-making purposes. A guideline that focuses on response to newly identified HIV positive cases was developed in 2013 EFY. It is an extension of the national CBS guideline and developed to guide the required individual and cluster response using CBS and recency data. The manual is intended for use by health care providers, program managers, and relevant stakeholders at multiple levels

- **Implementation of DSD models for PLHVs taking ART service**: At the end of 2013 EFY, 232,214 PLHIVs were on Appointment Spacing DSD model. In addition, UHEP-Managed CAG and Fast track ART Refill (FTAR) DSD Models were implemented in the fiscal year. To start implementation of Advanced HIV Disease (AHD) DSD model, a proposal is developed and approved. Training materials for AHD model is under preparation. Regarding community DSD Models (i.e. HEP CAG and PCAD) 1,436 groups were formed with members of 7,992(2%). 3,554 (1%) PLHIVs were enrolled to Fast track ART Refill (FTAR).

- **TB preventive therapy**: Pilot testing short course TB preventive therapy was conducted in four regions and preparations underway to expand to additional two regions

- Hepatitis prevention and control activities

    - Awareness creation on hepatitis was done, hepatitis day was celebrated for the 7th time in Ethiopia during which different messages were conveyed through media
    - The national strategic plan and hepatitis guideline was revised in the fiscal year
    - Training of trainers (TOT) was provided on hepatitis prevention and control were provided to health workers

HIV/AIDS multi-sectoral response program implementation

As a multi-sectoral response to HIV prevention and control program, the following multi-sectoral response activities, especially for key and priority population groups were performed in the fiscal year.

Care and support to Orphan and Vulnerable Children (OVC)

Orphan and Vulnerable Children (OVCs) and their caretakers were supported with food, education, training and start-up capital support. In the fiscal year, IGA training was provided to 46,464 OVCs and/or their caregivers and 51,993 received a start-up capital or material for IGA. With regard to food and education support, 282,277 OVCs were provided with food support and 354,074 OVCs were provided with education support.

Care and support to PLHIVs

Provision of care and support to People living with HIV (PLHIVs) was one of the major multi-sectoral HIV/AIDS responses in the fiscal year. In 2013 EFY, 31, 085 PLHIVs were provided with training on income generating activity (IGAs). A start-up capital support was provided to 34, 927 PLHIVs and 120,142 PLHIVs were provided with food support.

Services to school youth

In the fiscal year, 4,919,688 students were reached with behavioral change communication (BCC), through peer education and/or life skill education

Support to vulnerable women

Support was also provided to vulnerable women including commercial sex workers, out of school youth women who are at high risk to HIV and other vulnerable women. In the fiscal year, 88,076 vulnerable women were provided with a start-up capital for income generating activity (IGA) and 66,160 received a training on IGAs.

Condom Distribution

In 2013 EFY, 91,384,361 condoms were distributed (about 47.49 million condoms were distributed to key and priority population groups and about 43.90 million condoms were distributed to the general population).

Challenges and way forward on HIV/AIDS prevention and control program

Challenges

- Occurrence of insecurities and presence of high number of internally displaced people (IDPs) in many places affected provision different HIV prevention, care and treatment services
- Supply interruption
- Lack of a robust mechanism to identify repeat HIV testers
- Limited availability of HIV viral load testing service; long turnaround time (TAT) of viral load test results delivery
- Effect of COVID-19 on program implementation: Due to COVID-19, regular mentorship was not provided to health facilities regularly. It also caused interruption of routine viral load test sample collection, transportation and referral services
- Delay in procurement of HIV/AIDS commodities due to problems in the global logistics management system caused by the global pandemic
- Shortage of budget
- Lack of ownership of multi-sectoral HIV/AIDS responses in some sectors
- Shortage of condoms for distribution
- Low attention for viral Hepatitis and STI program at all levels of the health system

Way forward for next year

- Strengthen implementation of fast track combination HIV prevention activities
- Strengthen targeted HIV interventions and enhance HIV testing in key and priority populations by expanding the recently launched RoTA case finding strategy
- Scale up HIV self-testing (HIVST) service, especially the unassisted HIVST, to all regions of Ethiopia
- Strengthen early infant diagnosis and pediatric HIV care and treatment service.
- Enhance uninterupted routine Viral Loas testing service and improve testing coverage
- Capacity building of health care providers and program managers at all levels
- Scale up of diversified DSDM includihg Fast track pharmacy refill and Adolescent ART age group
- Ensure and follow the scale up of PrEP service for HIV negative high risk female sex workers (FSWs) and HIV negative partners of serodiscordant couples in all regions
- Strengthen implementation of ART regimen optimization and expand third line ART treatment sites
- Ensure uninterrupted supply of HIV commodities
- Strengthen viral hepatitis prevention, care and treatment
- Revitalize and strengthen multi-sectoral HIV/AIDS committees at all levels
- Conduct assessment of the effect of COVID-19 on PLHIVs and orphans and design interventions based on the assessment
- Integrate electronic-multisectoral response information system (e-MRIS) with DHIS2 platform

3.8.2 Tuberculosis and Leprosy Prevention and Control Program

Tuberculosis (TB) is a major global public health problem. About a quarter of the world's population is infected with Mycobacterium tuberculosis and thus at risk of developing TB disease. TB is among the top 10 causes of death globally. According to 2020 WHO Global TB Report, an estimated 10.0 million people fell ill with TB, 1.2 million TB deaths among HIV-negative people and an additional 208,000 deaths among PLHIV in 2019. It is the leading cause of death from a single infectious agent globally. Drug-resistant TB continues to be a global public health threat with 3.4% of new TB cases and 18% of previously treated cases having multidrug resistant TB or rifampicin-resistant TB (MDR/RR-TB). The epidemiologic distribution of TB shows that almost 90% of those who fall sick with TB each year are found in 30 high TB burden countries.

Ethiopia is one of the 30 high TB burden countries with an annual estimated incidence of 140 cases per 100,000 population (WHO Global TB Report 2020). Ethiopia has recognized TB as a major public health problem nearly six decades ago. Cognizant of the burden of TB in Ethiopia, the Ministry of Health has given priority to the prevention and control of TB and implementing high-impact interventions in line with global strategies. As a result of our past investments and successful implementation of the strategies, substantial gains were made in reducing the disease burden. The TB incidence has declined dramatically and TB mortality rate has also declined substantially to reach 19 per 100,000 populations in 2019. This year, Ethiopia has been removed from the MDR-TB high burden countries' list. Ethiopia has expressed commitments to end TB epidemic by 2035 by endorsing the END TB strategy and new global targets set in the political declaration at the first UN high-level meeting on TB, in September 2018. Ethiopia has also adopted the global strategy to eliminate leprosy by 2030. The country has revised its National TBL Strategic Plan in line with the global targets. The National End TB strategy aims to end the TB epidemic by reducing TB related deaths by 95% and incident TB cases by 90% between 2015 and 2035; and to ensure that no family is burdened with catastrophic expenses due to TB. The strategy calls for use of robust TB case finding strategies and use of rapid diagnostic technologies to address the gaps in treatment coverage for both Drug Susceptible TB and RR/MDR-TB. The National TBL Control program is committed to improve access to equitable TBL services to all vulnerable population groups where TBL burden concentrates. The program also recognizes the need for intensified research and innovations to sharply bend the TB epidemic curve to meet the ambitious targets for 2035.

In this section, the performance of key tuberculosis and leprosy indicators, major national and sub-national level activities performed and challenges are discussed.

TB incidence rate

The annual incidence of TB in Ethiopia has decreased over time. The incidence has decreased from 192 cases per 100,000 population in 2015 to 140 in 2019 (World TB report, 2020).

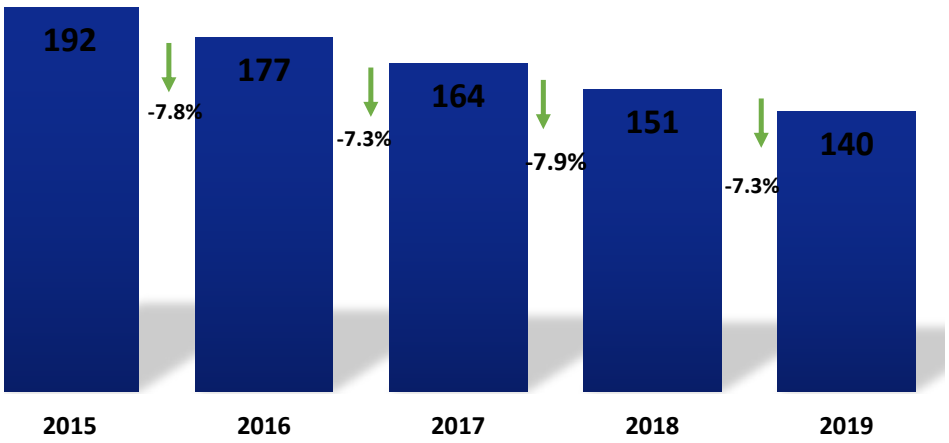


Figure 23. Trend of TB incidence in Ethiopia, 2015 to 2019

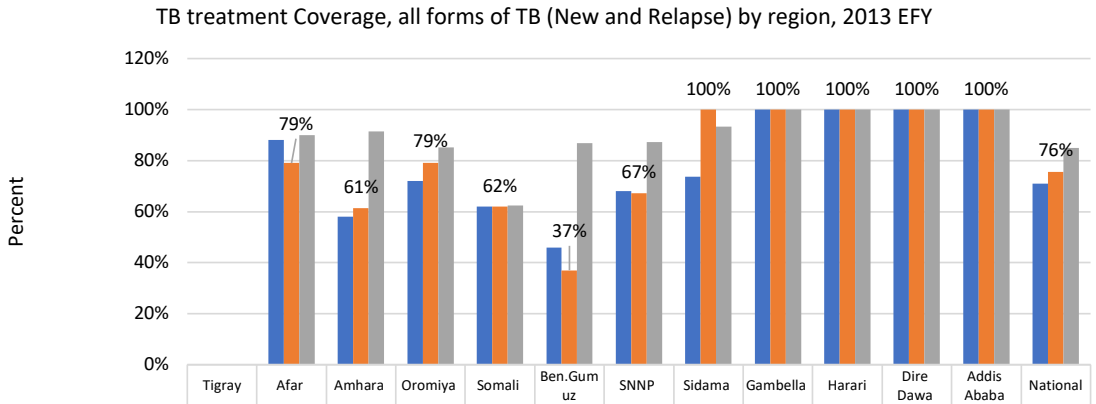
Tuberculosis case notification

Tuberculosis case notification rate is one of the key indicators to monitor the performance of TB prevention and control programs. TB notification is the number of all forms of TB cases notified per 100,000 population (including new bacteriologically confirmed, new clinically diagnosed pulmonary and extra pulmonary TB cases and all relapse cases) from the total estimated number of incident TB cases in the area during a given time period. In 2013 EFY, 104,450 all forms of TB cases were notified (1,574 of them were in Tigray region during the first quarter of 2013 EFY). This shows that TB notification rate was 106 per 100,000 population (Since Tigary region did not report for three quarters, it is not included in the national notification rate calculation). Compared to the current estimated incident TB cases (140 cases/100,000) the current notification performance (106/100,000) is low.

Tuberculosis treatment Coverage

The national TB treatment coverage (which indicates the number of all forms of TB (new and relapse TB cases) that were notified and treated, divided by the estimated number of incident TB cases in the same year, expressed as a percentage) stands at 76% in 2013 EFY. In 2013 EFY, 104,450 all forms of TB cases were detected and treated based on the national tuberculosis treatment protocol. This shows that TB treatment coverage in 2013 EFY was 76%, which is higher than the 2012 EFY performance (treatment coverage in 2012 EFY was 71% in 2012 EFY).

Though the performance of TB treatment coverage was higher than the performance of the previous fiscal year, it is lower than the target set for 2013 EFY. The target in 2013 EFY was 85% but the performance is 76%. TB treatment coverage in five regions (Sidama, Gambella, Harari, Diredawa and Addis Ababa) was 100% of the expected incident cases while the lowest TB treatment coverage was documented in Benishangul Gumuz region (37%). This shows that there is a huge regional discrepancy between different geographic regions in detecting and treating tuberculosis cases.



	Tigray	Afar	Amhara	Oromiya	Somali	Ben.Gumuz	SNNP	Sidama	Gambella	Harari	Dire Dawa	Addis Ababa	National
Baseline		88%	58%	72%	62%	46%	68%	74%	100%	100%	100%	100%	71%
Performance (2013 EFY)		79%	61%	79%	62%	37%	67%	100%	100%	100%	100%	100%	76%
Target (2013 EFY)		90%	91%	85%	62%	87%	87%	93%	100%	100%	100%	100%	85%

Figure 24. TB treatment coverage (all forms of TB) by region, 2013 EFY

Tigray Region: In the first quarter of 2013 EFY, 1,574 all forms of TB cases were detected and treated (Treatment coverage of 20%). Except for the first quarter report, there is no report about the performance of the region. As a result, Tigray's performance is not included in the national performance.

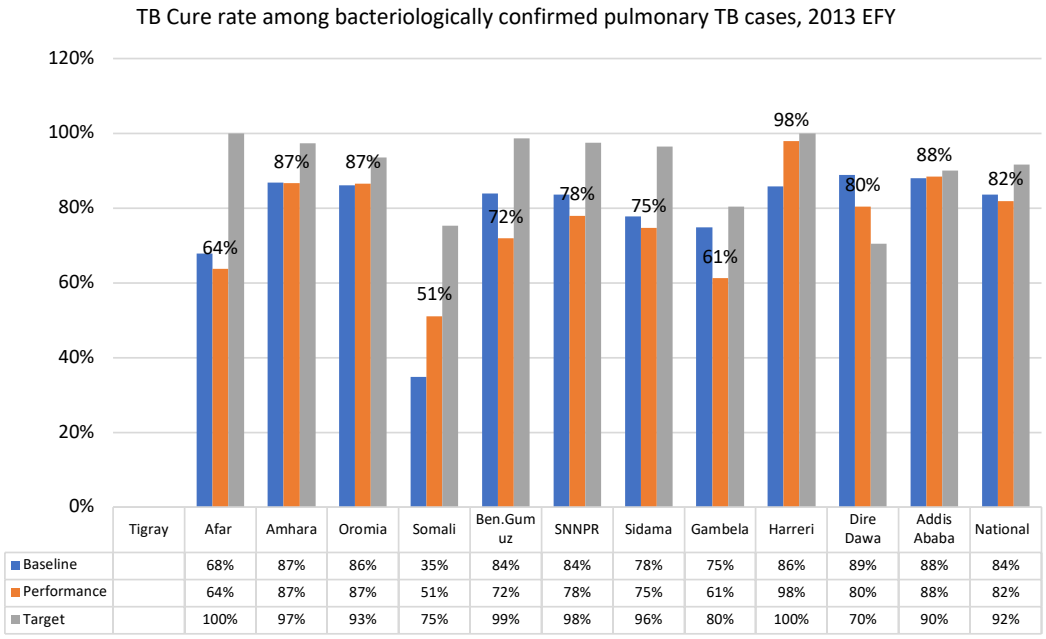
Some of the major effective strategies for reducing the transmission of TB are engaging the community in TB case detection, PPM, TB among key and priority population groups and childhood TB detection activities. The community in the context of community TB care refers to trained community volunteers, Health Development

Agents, health extension workers or, community members supporting patients (treatment supporter). In 2013 EFY, from the total all forms of TB cases detected in the fiscal year, 19% of them were contributed through community TB contribution. Community contribution to TB case detection in 2013 EFY is increased compared to the previous year (which was 15.4%). Regarding private contribution to TB case detection, 17% of all TB cases were notified in public health facilities with initial referral by Public Private Mix (PPM) sites for TB diagnosis or for initiation of TB treatment.

Tuberculosis Treatment Outcomes

Tuberculosis Treatment Cure Rate

TB treatment cure rate is one of the key indicators to monitor the effectiveness of TB treatment program. It measures the program's capacity to retain patients through a complete course of chemotherapy with a favorable clinical result. In 2013 EFY, cure rate for bacteriologically confirmed new pulmonary TB cases is 82%, which is lower than the baseline (84%) and the target for 2013 (92%). TB cure rate is the lowest in Somali and Gambella regions, with a cure rate of 51% and 61% respectively. Harari, Amhara, Oromia and Addis Ababa performed better with a cure rate of 98%, 88% and 87% respectively.



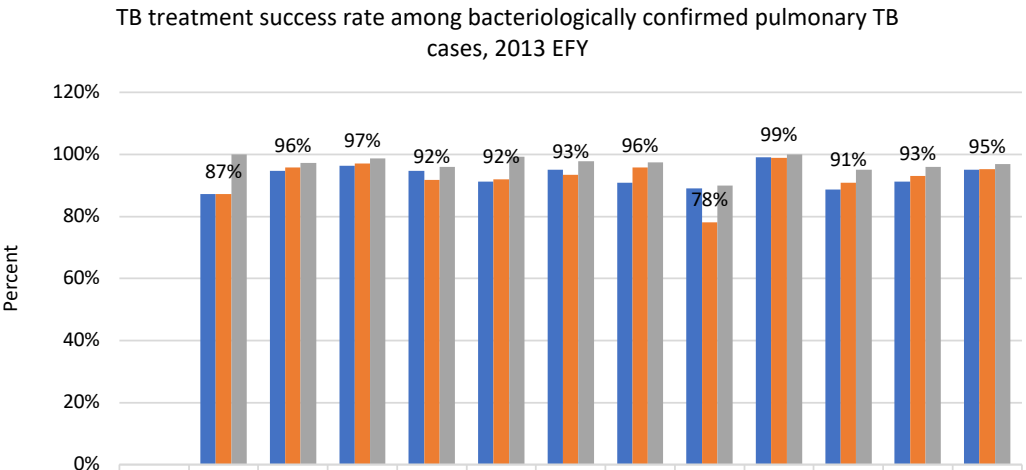
	Tigray	Afar	Amhara	Oromia	Somali	Ben.Gumuz	SNNPR	Sidama	Gambela	Harreri	Dire Dawa	Addis Ababa	National
Baseline		68%	87%	86%	35%	84%	84%	78%	75%	86%	89%	88%	84%
Performance		64%	87%	87%	51%	72%	78%	75%	61%	98%	80%	88%	82%
Target		100%	97%	93%	75%	99%	98%	96%	80%	100%	70%	90%	92%

Figure 25. TB Cure rate among bacteriologically confirmed pulmonary TB cases, 2013 EFY

Tigray Region: A performance report for Tigray region is available for the first quarter of 2013 EFY only (Hamle 2012-Meskerem 2013). In the first quarter, TB treatment cure rate among bacteriologically confirmed pulmonary TB cases in Tigray region was 70%.

Tuberculosis Treatment Success Rate (TSR)

In 2013 EFY, treatment success rate (TSR) among bacteriologically confirmed new PTB cases was 95%. This is a performance, which is similar to the previous year but lower by 2% from the fiscal year's target. All regions have a treatment success rate more than 90%, except Gambella region (TSR, 78%). The result shows that among bacteriologically PTB cases, 95% of them successfully completed treatment indicating the program's capacity to retain patients through a complete course of chemotherapy with a favorable clinical result.



	Tigray	Afar	Amhara	Oromia	Somali	Ben.Gu muz	SNNPR	Sidama	Gambela	Harreri	Dire Dawa	Addis Ababa	National
Baseline		87%	95%	96%	95%	91%	95%	91%	89%	99%	89%	91%	95%
Performance		87%	96%	97%	92%	92%	93%	96%	78%	99%	91%	93%	95%
Target		100%	97%	99%	96%	99%	98%	97%	90%	100%	95%	96%	97%

Figure 26. Tuberculosis treatment success rate among bacteriologically confirmed new PTB cases, 2013 EFY

Tigray Region: A performance report for Tigray region is available for the first quarter of 2013 EFY only (Hamle 2012-Meskerem 2013). In the first quarter, TB treatment cure rate among bacteriologically confirmed pulmonary TB cases in Tigray region was 96%.

Unsuccessful TB treatment outcome

Unsuccessful TB treatment outcome is the percentage of cohort of all forms of TB (new and relapse) of TB cases (Bacteriologically confirmed, clinically diagnosed) registered in a specified period that failed, died or lost to follow up during treatment. Unsuccessful treatment outcome is high among clinically diagnosed PTB cases, with 4.8% of cohort of clinically diagnosed PTB cases having unsuccessful treatment outcome. 3.6% of bacteriologically confirmed PTB cases and 3.7% of extra pulmonary TB cases have had unsuccessful treatment outcomes. The percentage of each group who were died, lost to follow up and failed treatment are displayed in the figures below.

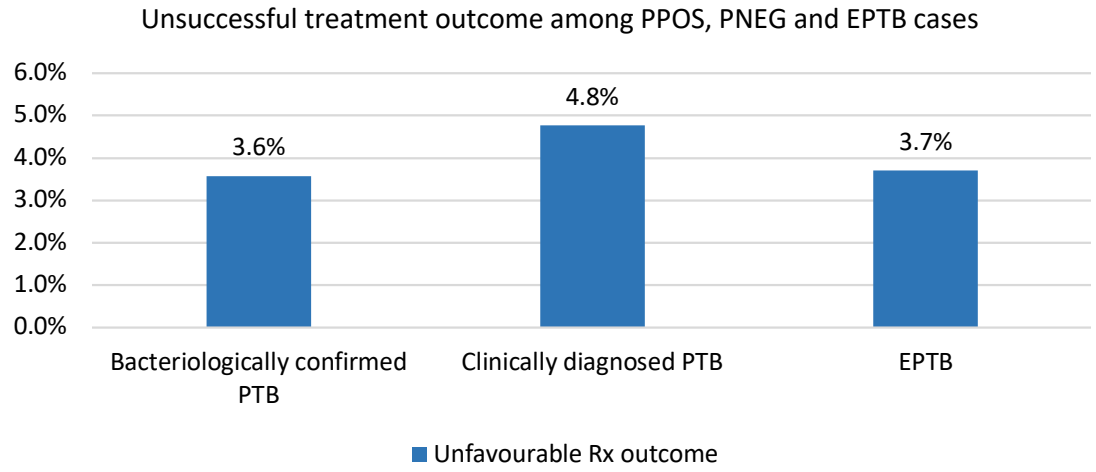


Figure 27. Proportion of all forms of TB cases with unsuccessful treatment outcome, 2013 EFY

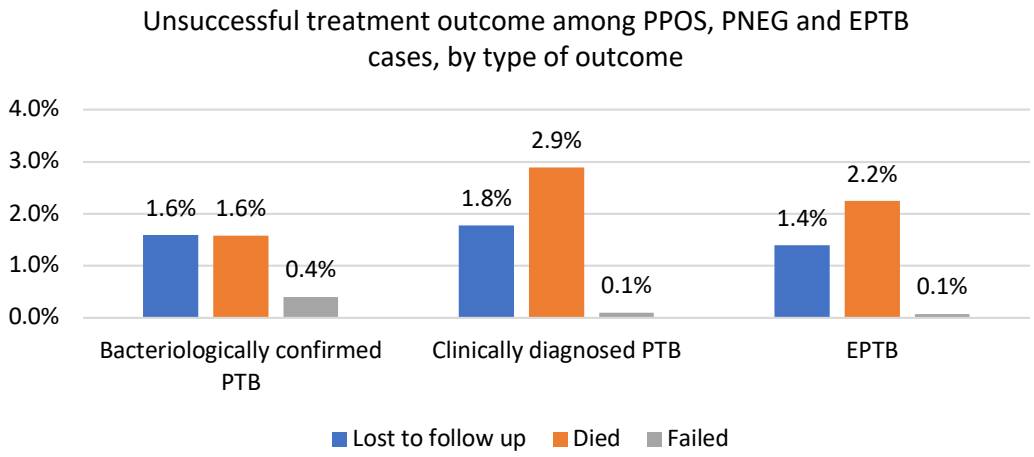


Figure 28. Proportion of all forms of TB cases with unsuccessful treatment outcome, by type of outcome, 2013 EFY

TB Contact tracing and screening

Contact tracing and screening is one of the key components of TB prevention, especially in children. It is one of the major initiative in the national TB prevention and control program. In 2013 EFY, a total of 189,740 contacts with index of TB cases were traced/identified, among which 169,330 (89%) were screened for tuberculosis. Regarding contact tracing and screening of children under 15 years old, 36,741 children that had contacts with index of drug susceptible pulmonary TB cases were traced/identified. From the total identified contacts, 35,992 were screened for tuberculosis and among which 33,281 (92%) were screened negative for tuberculosis. In the fiscal year, 21,345 children <15 year contacts who were screened negative for tuberculosis were put on TB preventive Therapy or TPT regimens (3HP, 3RH and 6H).

Drug Resistance Tuberculosis (DR TB)

Drug resistant TB continues to pose a major threat in the national response to TB in Ethiopia. The magnitude and extent of drug resistance in TB is being monitored in Ethiopia through periodic drug resistance surveys (DRS). The third national DRS was completed in 2019. The prevalence of RR-TB is 1.1% among new and 7.5% among previously treated TB cases, respectively according to the preliminary report of the 2019 national TB Drug Resistance Surveys (DRS). MDR prevalence was 1.03% among new and 6.52% among previously treated TB patients.

To identify DR TB cases, notified TB cases eligible for drug susceptibility testing were provided with drug sensitivity test according to the national policy. In the fiscal year, 23,839 notified TB cases were eligible for drug susceptibility testing, among which 14,657 (61%) were tested for drug susceptibility for at least rifampicin.

In 2013 EFY, 634 drug resistant TB (DR TB) cases were detected. This is only 57% of the estimated 1,118 DR TB cases in Ethiopia. Regarding DR TB treatment in 2013 EFY, 549 DR TB cases were put on second line treatment. DR TB treatment initiation has been provided in 64 treatment-initiating centers (TICs) and treatment follow up was provided in treatment follow up centers (TFCs).

Regarding treatment outcome among DR TB cases, from the total number of cohort DR-TB cases that started short-term second-line anti-TB treatment regimen 24 months earlier, 82% have successfully completed treatment. Among cohort of DR-TB cases that started long-term second-line anti-TB treatment regimen 36 months earlier, 65% have successfully completed treatment.

Leprosy Prevention and Control Program

Leprosy Case Detection Rate

In 2013 EFY, 2535 leprosy cases were detected and started treatment (703 were pauci-bacilliary (PB) and 1855 were multi-bacillary leprosy cases). This shows that the incidence of leprosy cases is 0.25 cases per 10,000 population. Leprosy case detection is high in Gambella (0.66 per 10,000) followed by Harari (0.41 per 10,000). In Somali region, no new case of leprosy was reported in the fiscal year (See table below).

Table 14. Number of Leprosy cases detected, 2013 EFY

Region	No. of new cases detected	Number of cases per 10,000 population
Tigray	-	-
Afar	22	0.11
Amhara	745	0.33
Oromia	1451	0.37
Somali	0	0.00
Ben.Gumuz	44	0.38
SNNPR	106	0.06
Sidama	49	0.11
Gambela	33	0.66
Harari	11	0.41
Dire Dawa	13	0.25
Addis Ababa	61	0.16
National	2535	0.25

Tigray Region: A performance report for Tigray region is available for the first quarter of 2013 EFY only (Hamle 2012-Meskerem 2013). In the first quarter, 23 new cases of leprosy were reported from Tigray region.

Grade II disability rate among new cases of leprosy

In 2013 EFY, grade II disability rate among new cases of leprosy is 12%. This is lower than the previous year (it was 15% in 2012 EFY) but disability rate is still higher than the expected (should be <10%). The highest disability rate is reported in Addis Ababa, SNNP and Sidama regions with a grade II disability rate of 31%, 25% and 22% respectively. The lowest disability rate is reported in Harari and Dire Dawa regions.

Table 15. Grade II disability rate among new cases of leprosy by region, 2013 EFY

Region	No. of new cases	No. with grade II disability	Grade II disability rate
Tigray			
Afar	22	6	27%
Amhara	745	85	11%
Oromia	1451	136	9%
Somali	0	0	NA
Ben.Gumuz	44	5	11%
SNNPR	106	27	25%
Sidama	49	11	22%
Gambela	33	3	9%
Harari	11	0	0%
Dire Dawa	13	1	8%
Addis Ababa	61	19	31%
National Level	2535	293	12%

Leprosy treatment Outcome

Leprosy treatment-completion rate for Pauci-Bacillary (PB) leprosy cases was 87% and for multi bacillary (MB) leprosy cases was 88%.

Tuberculosis and Leprosy prevention and control program: Other major activities and achievements, challenges and way forward

Other major activities and achievements in 2013 EFY

- **Updates on national guidelines:** The national guidelines on clinical and programmatic management of TB, TB/HIV, DR-TB and Leprosy in Ethiopia has been revised to reflect the latest global recommendations and policies. The national training materials were also updated accordingly
- **Capacity building:** Training of trainers (TOT) and basic trainings have been provided to health managers and health workers on various TB and Leprosy prevention and control program and patient management topics. The training areas include: comprehensive TBL; TB and HIV collaborative activities, Drug resistance tuberculosis, TB preventive therapy (TPT), community TB and leprosy
- **Advocacy and Awareness creation activities:** To raise the awareness of the community on TB prevention and control, various awareness creation messages were transmitted through different media of communications. Some of these include; A 3 months TV and radio spot program on tuberculosis, 260 radio spots were transmitted on leprosy prevention, different booklets leaflets and pamphlets were printed and distributed, , celebrated different World TB day, World leprosy day
- **Mobile TB/HIV Clinics Service initiation in pastoralist areas:** To strengthen community TB detection and services, vehicles that provide mobile TB and HIV clinic services were distributed to three regions to support TB service delivery at pastoralist communities
- **TB Preventive Therapy with new TPT regimens rollout**: 3HP service is started in 150 health centers in Addis Ababa, Oromia, SNNP and Sidama Zones
- **TB screening service at congregated areas:** TB screening was done for 78,870 people in selected 20 urban slums in Addis Ababa, Dire Dawa and Harari regions. Among the total screened individuals, 3,406 individuals were screened positive for TB. From the 3,406-screened positives, 89 were diagnosed with tuberculosis and linked to treatment. In addition, TB screening was done in selected areas in Oromia and Amhara regions, among which two individuals were diagnosed with tuberculosis and linked to treatment. TB screening was also conducted for 3,692 mineworkers in Oromia, among which 16 were diagnosed with TB. Screening was also done for 3735 people at religious bathing places, from which three TB cases were identified and linked to treatment.
- **National Launching and Rollout of an all-oral Bedaquiline based RR/MDR-TB Regimens**: National launching and complete rollout of an all-oral Bedaquiline containing shorter RR/MDR-TB regimen was conducted in accordance with the latest WHO recommendation on DR-TB treatment. The injectable containing regimen was completely rolled out during the 2013 EFY. The required medicines for the rollout of an oral-shorter MDR-TB treatment were procured and distributed to 64 treatment-initiating centers. In addition, the implementation manual was revised and health workers were trained
- More than 800 patients on DR-TB treatment follow up have been provided with nutritional support
- **Monitoring and Evaluation:** TB and leprosy program specific supportive supervision was conducted, the national TB and leprosy program review was done and data analysis and review conducted every quarter. Moreover, special program performance review was conducted on prison TB, TB preventive therapy (TPT) and childhood TB

Challenges

- Weak TB sample transport mechanism and lack of strong laboratory networking system
- Low coverage of universal drug sensitivity testing (DST) Coverage
- Suboptimal community engagement and contribution in case notification
- Low DR-TB Case detection
- High attrition and turnover of trained man-power
- COVID-19 pandemic affecting case finding and treatment activities
- Conflicts and high number of internally displaced people (IDPs)
- Weak domestic resource mobilization for tuberculosis and leprosy prevention and control program implementation
- Poor supply request and logistics management system for TB drugs (especially SLDs)
- Reporting and requisition problems by HFs although sufficient supply especially SLDs

Way forward

- Improve TB laboratory networking and sample transportation
- Expand DST in order to ensure that all bacteriologically confirmed PTB cases will get DST for at least rifampicin
- Focus on strengthened community TB interventions and activities by increasing the involvement of leadership at all levels of the health system
- Engage more Public-private mix (PPM) sites and strengthen the existing PPM sites for improved TB prevention and treatment services
- Enhance monitoring and evaluation of TB and leprosy program
- Map Woredas with a low or decreasing TBL case notification during the COVID-19 pandemic and conduct catchup campaigns
- Prepare evidence based advocacy and budget request to increase budget for TB program

3.8.3. Malaria Prevention and Elimination Program

In Ethiopia, malaria remains to be one of the major public health and socioeconomic problems despite its dramatic reduction in the last two decades. Apart from illness and deaths, it causes persistent socio-economic impacts particularly to more than eighty per cent of the country's rural communities. A survey in 2018 showed that malaria accounts for loss of 30% of the overall disability adjusted life years (DALYs) as well as imposing a high economic cost. Accordingly, malaria stands to be one of the top priority programs in the national health and overall socioeconomic development agenda. Malaria prevention, control and elimination have been given due attention by the government and its partners. Moreover in 2010 EFY, the country launched a malaria elimination program, which in turn demonstrated the government's commitment in the fight against the disease. The major activities, achievements and challenges in EFY 2013 are described as follows.

Malaria Cases and Deaths

The number of malaria cases diagnosed over years has been decreasing until 2011 EFY but it has increased in 2012 EFY and then declined in 2013 EFY compared to EFY 2012. In 2013 EFY, 1,220,027 total malaria cases (clinical and laboratory confirmed) were diagnosed, among which 1,135,338 (93.1%) were laboratory confirmed malaria cases, 201,111 (16.5%) cases were under five children, 19,140 (1.6%) were admission cases

and 976,801 (80.1%) were plasmodium falciparum malaria. The number of total malaria cases in EFY 2013 shows a decrease by 289,155 cases (19% reductions) from the 2012 EFY, this might not show the full picture as Tigray region's data is not included in the 2013 EFY data analysis.

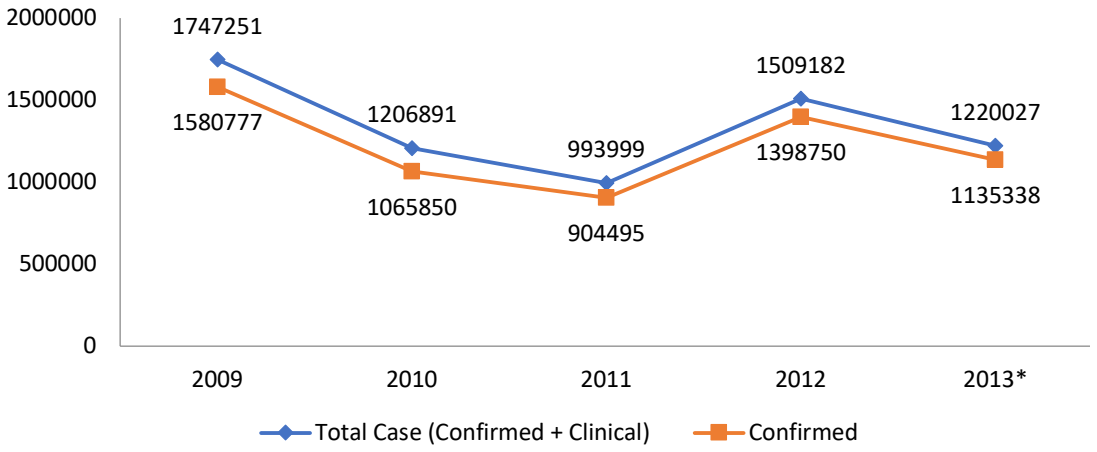


Figure 29. Trend in number of malaria cases, 2009 EFY to 2013 EFY

*Note: Tigray data not included in 2013 EFY analysis since there was no report from the region

Malaria incidence rate per 1,000 population at risk has been decreasing consistently until 2011 EFY but in 2012 EFY it increased. In 2013 EFY it showed a slight decrement, this might not show the full picture as Tigray region is not included from 2013 data analysis. The malaria incidence rate in 2013 EFY was 23 per 1000 population which is less by five cases per 1000 population than the 2012 EFY figure.

Regarding regional distribution, malaria incidence rate per 1000 population at risk was the highest in Benishangul Gumuz region (86.4 cases per 1000 population at risk) and the lowest in Dire Dawa (1.9 malaria cases per 1000 population at risk).

Regarding malaria deaths, there were 132 deaths due to malaria, which were 0.25 malaria deaths per 100,000 populations at risk and 36 (27.3% of malaria death) malaria deaths were among under-five years' children. A malaria death per 100,000 populations was lowest in Oromia (0.1) and highest in Benishangul Gumuz region (2.4). The death rate is lower than the previous preceding years' reports and decrease by 36% from the 2012 EFY data.

Nationally, in 2013 EFY around 53.7% of the total population (approximately 57 million people) is at risk of malaria. The proportion of population who are at risk of malaria differs among regions, where more than 95% of the population in Afar, Somali, Benishangul Gumuz, Gambella, and Dire Dawa are at risk of malaria. In Harari, 86.9% of the population is at risk of malaria.

Table 16. Malaria Incidence rate per 1,000 populations at risk and Malaria Deaths per 100,000 populations at risk, 2013 EFY

Region	Malaria case				Malaria death			
	<5 year case	≥ 5 years case	Total case (clinical & confirmed)	Incidence per 1000 population at risk	<5 year death	≥ 5 years death	Total death	Malaria death per 100,000
Afar	22747	79,921	102,668	52.5	0	0	0	-
Amhara	53807	422,238	476,045	56.6	1	15	16	0.19
Oromia	24656	121,932	146,588	7.1	7	14	21	0.1
Somali	14310	55,780	70,090	11	8	10	18	0.28
B. Gumuz	20100	77,027	97,127	86.4	2	25	27	2.4
SNNP	49554	209,117	258,671	26	11	20	31	0.31
Sidama	4569	19,780	24,349	9.1	5	6	11	0.41
Gambella	10939	29,075	40,014	80.9	2	2	4	0.81
Harari	167	1,284	1,451	6.2	0	1	1	0.43
Dire-Dawa	64	920	984	1.9	0	1	1	0.19
AA	198	1,842	2,040	-	0	2	2	-
National	201,111	1,018,916	1,220,027	23.4	36	96	132	0.25

Long-lasting Insecticidal Nets (LLINs) Distribution

Distribution and utilization of LLINs at household level is one of the primary malaria control interventions in the country. In 2013 EFY, LLIN procurement and distribution were performed to households at risk of malaria. Based on the 2013 EFY revised national malaria risk stratification, there was a plan to procure and distribute 10.6 million LLINs. Of these 7.8 million (74% of the plan) was procured and 5.3 million (68%) LLINs were distributed to Dire-Dawa, Harar, Somali, Amhara and Oromia regions. From the 2012 EFY procured LLINs 111,969 were distributed to the displaced people due to flooding and conflicts.

Indoor Residual Spraying (IRS) of Unit Structures

Indoor residual spraying (IRS) of unit structures is one of the vector control interventions that have been conducted in targeted risk areas. In 2013 EFY, there was a plan to spray 2.8 million unit structures, 2,090,640 (73% of the plan) of the unit structures spayed with the distributed 683 tons of chemicals for regions.

Table 17. Indoor residual spraying coverage and the type of chemical used, 2013 EFY

Region	Planned number of unit structures to be sprayed with IRS	No. of unit structures sprayed with IRS	Coverage (%)	Type and amount of chemical used	
				Propoxure 50% WP in Kg	Actellic 300Cs in Bottle
Tigray	331,618	106,870	32	42,748	-
Afar	67,062	73,579	110	7,870	-
Amhara	660,523	443,421	67	200,583	-
Oromia	635,686	703,221	111	221,960	57,120
Somali	100,000	100,210	80	20,042	-
Benishangul Gumuz	256,603	276,405	108	-	54,197
SNNP	463,908	222,182	48	110,568	-
Sidama	81,873	55,485	68	25,977	-
Gambella	113,820	109,267	96	-	21,425
Total	**2,861,091**	**2,090,640**	**73**	**629,748**	**132,742**

Malaria Elimination Activities

The goal of the malaria elimination program is to eliminate local transmission of malaria nationally by 2030. A workshop was conducted to strengthen the case investigation and response activities in pre-identified 239 elimination woredas and at the end of the workshop, respective regions have developed accelerated plan to strengthen the malaria elimination activities.

In the fiscal year, supporting the case and foci investigation and response activities includes: provide feedback in the malaria elimination woredas, standard operating procedures (SoPs) were developed and training of trainers (ToT) as well as cascade training was organized. Using case and foci investigation and responses protocol and the S0Ps, cases investigation and response has been done for 13,409 (80%) from the plan 16,867 malaria cases and feedback shared with targeted regions.

Other activities performed on malaria prevention and control

- Five years malaria strategic plan (2021 – 2025) developed
- 439 microscopes were distributed for public health facilities in malaria elimination woredas
- 423 health care providers and 90 laboratory professionals trained on malaria case investigations and management
- 14.56 Millions Rapid Test Kits (RDTs) and malaria treatment medicine (Coartem) distributed in all regions for the treatment of 3.3 million malaria patients.

Major achievements

- **Malaria Epidemiology:** Mortality and morbidity attributed to malaria declined significantly from 2008 EFY – 2011 EFY, though morbidity has increased in 2012 EFY. Death due to malaria has declined by 65% from 0 .71/100,000 population to 0.25/100,000 population at risk between 2009 and 2013 EFY. Similarly, the annual incidence rate has declined by 34% from 35/1000 population at risk to 23/1000 population at risk between 2009 and 2013 EFY.
- **Entomology:** Monitoring of insecticides susceptibility, survey on geographical distribution of *An. stephensi* and other entomological works have been carried in collaboration with partners.
- **Vector Control:** Various activities have been performed to control malaria vectors such as distribution of LLINs and IRS spraying.
- **Malaria case management:** National malaria diagnosis and treatment guidelines, which align with the WHO guidelines is being used throughout the country. Malaria RDTs and drug availability has increased over the years. Integration of malaria EQA with the TB EQA achieved to ensure quality of microscopic examination, which will kick-off in EFY 2014. Refresher training on case management was held to health workers drawn from various health facilities.
- **SBCC:** Different SBCC activities have been implemented in the fiscal year including broadcasting varies message in television and radio programs using national as well as regional media platforms to reach the community. In selected 246 malarias woreda campaign was organized with the slogan “Zero malaria starts with me” involving relevant stockholders.
- **Surveillance and epidemic preparedness and response:** Since 2003, there has not been a major malaria epidemic except a few local malaria outbreak reports in some parts of the country. Malaria surveillance and response system improved through monitoring a weekly malaria data and providing a timely feedback as well as issuing an alert letter in case of unusual natural or man-made events, which could facilitate a surge of the disease.

Challenges

- Protracted internal conflicts and massive IDPs
- Resistance of the local vectors to the commonly used insecticides and lack of adequate as well as affordable insecticides to implement an insecticide resistance management (IRM) plan
- Getting adequate budget to cover all the targeted unit structure with IRS
- Timely replacement and maintenance of IRS equipment based on the agreement
- Sub-optimal use of interventions, like LLINs by at risk communities
- The detection of HRP2/3 deletion in parasite population that may scape diagnosis by RDT
- The detection of new vector *An. stephensi* in urban and rural settings with potential to transmit malaria parasites
- Lack of malaria drugs consumption data and discrepancy between DHIS2 malaria morbidity data and commodities issue data

Way forward

- Improving preparedness through procuring and prepositioning of anti-malaria commodities to hard-to-reach areas or IDP centers before the peak transmission season,
- Implement IRM to delay or reverse insecticide resistance,
- Identify the possible source of budget and timely initiate the purchase process to cover the target unit structures with IRS,
- The management should follow up IRS equipment replacement implementation status of per the agreement,
- Design and implement effective and targeted SBCC activities to improve utilization of anti-malaria interventions at household level.
- Currently, conducting research on prevalence of HRP2/3 deletion at EPHI and AHRI to inform switching of diagnostic kit and where to implement the rollout
- Drafted An. stephensi surveillance strategy and NMEP will plan and follow up with pilot implementation

3.9. Prevention and control of Non-Communicable Diseases and Injuries

According to the 2019 global burden of disease (GBD) report estimate, the number of all deaths in Ethiopia annually is 559,997. Of these 39% were attributable to non-communicable diseases (NCD) and 8% due to injuries. Most of death from NCD are due to cardiovascular diseases (30%), cancer (15%), digestive diseases (13.5%) and diabetes and kidney disease (8.7%). More than half (51%) of the NCDI mortality occurs before age 40, and 63% occurs before age 50 years. Additionally, NCDIs were found to contribute 42% to total DALYs lost in Ethiopia. Over 60% of DALYs lost due to NCDIs in Ethiopia occurred before age 40 showing a very high burden in the productive age group. The major NCD prevention and control achievements in 2013 EFY are described below.

Policy, strategies and proclamations related to NCD and risk factors interventions

- The second major NCDs prevention and control strategic plan (2020-2025) was launched and disseminated

- The draft proclamation on the regulation of unhealthy diet was further enriched and made ready for public debate before its endorsement by parliament
- Cervical cancer guideline was revised and launched
- Cervical cancer training manual and mentoring guideline are finalized
- Management protocols of the major NCDs (Diabetes Miletus (DM), Hypertension, rheumatic health disease (RHD) and chronic Respiratory disease (CRD) were finalized and ready for printing

Awareness Creation on NCDs and their risk factors

In 2013 EFY, a series of awareness creation activities such as panel discussions, printing of brochures, posters, job-aids and message dissemination was accomplished. SMS messaging through Ethio-telecom and radio spot messages were aired through national and regional mass media channels. Additional accomplished awareness creation activities are:

- Provided budget support in a childhood cancer awareness creation video dissemination
- Cervical cancer awareness campaign was conducted through Walta TV and Ethiopian Radio for 1 month. Furthermore 1500 cervical cancer counseling cue card and brochures were printed and distributed
- Awareness raising messages developed and transmitted (through press release, panel discussions, radio spot message and social mobilization events like screening for NCD and physical exercise) during commemoration of World NCD days such as hypertension day, diabetes day, kidney day, world breast cancer awareness month, tobacco day, sight day and world glaucoma awareness day.
- Salt reduction messages developed in five local languages (Amharic, Oromiffa, Somaligna, Tigrigna and Sidamigna).

Integration of Major NCD Services (Hypertension, RHD, DM and CRD) to Primary Health Care

To further strengthen integration of major NCDs into the existing health delivery system, a number of activities were accomplished in 2013 EFY. NCD guidelines and other patient support tools were distributed to 291 health facilities and a TOT was provided to 60 health care providers from all regions major NCDs (Hypertension, RHD, DM and CRD). NCD and Eye Health modules, which are part of integrated refresher training (IRT) for level IV health extension workers, was prepared. A total of 479 Health extension workers from Amhara (122), Oromia (212), Somali (53) and Dire Dawa (92) Regions were trained on hypertension screening, prevention and management. In addition, a total of 157 Health care providers from primary hospitals, health centers and regional health bureaus were trained on integrated management of major NCDs.

NCD screening, diagnosis, management and follow up care training is one component of the Ethiopian Primary Health Care Guideline initiatives, which is currently implemented in more than 2086 health centers. Currently 291 hospitals are delivering integrated management of major NCDs from all regions. In EFY 2013, additional 110 primary hospitals have initiated integrated management of major NCDs and will service as training and referral sites for the health centers in their catchment.

To address supplies related shortcoming, medications for the treatment of major NCDs worth 885,000 USD was procured and distributed to 289 health facilities through EPSA. The health facilities are expected to retain the money and revolve the fund for procurement of medicines for major NCDs. Medicines donated by World Health Organization like insulin and other essential medicines were distributed to the health facilities.

Hypertension prevention and control

In EFY 2013, a total of 5,532,744 (more than twice of last year performance) individuals were screened for hypertension out of which 48% were male and 52% were female. From the total screened, 468,536 (8%) had raised blood pressure (8.9% of the screened male and 8.2% of screened females). Out of those with raised blood pressure, 196,083 (42%) were enrolled to care. Regarding treatment outcome, the plan was to monitor status of cohorts at six month however; the existing data do not support this analysis for this fiscal year which is expected to be improved in the subsequent year.

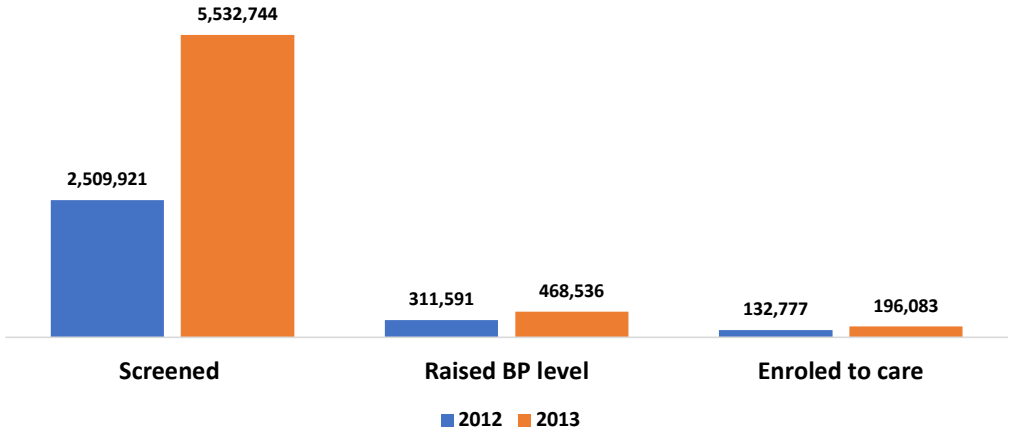


Figure 30. Number of individuals screened for hypertension and enrollment to care performance, 2012 and 2013 EFY

Diabetes Mellitus Prevention and Control

In EFY 2013, a total of 1,195,051(81% increase from last year performance) individuals were screened for diabetes out of which 51% were male and 49% were female. From the total screened, 148, 007 (12%) had raised blood sugar level (12.8% of the screened male and 11.9% of screened females). Out of those with raised blood sugar, 65,754 (44%) were enrolled o care. Regarding treatment outcome, the plan was to monitor status of cohorts at six month however the existing data do not support this analysis similar with that of hypertension. To improve data quality of both hypertension and diabetes, their indicators definition was included in the MoH HMIS reference guide and the data source and reporting format was revised in such a way to address the existing data quality.

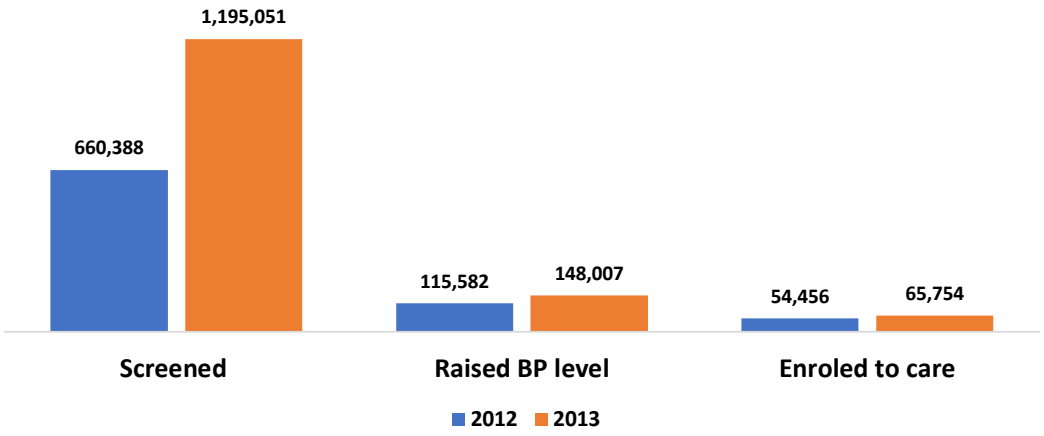


Figure 31. Number of individuals screened for diabetes and enrollment to care, 2012 and 2013 EFY

Cancer Control Program

According to 2019 GBD report, in Ethiopia cancer accounted for about 10% of total annual death while the Addis Ababa cancer registry study reported that about two-thirds of reported annual cancer deaths occur among women. Breast and cervical cancer among women and colon and prostate cancer among men are the leading cancer type in the country.

Increasing cancer screening and treatment service was the major cancer control initiatives in 2013 EFY. During the fiscal year, 441 additional health facilities started providing cervical cancer screening and treatment services. Currently, 1041 health facilities are providing cervical cancer screening and treatment service. Similarly, four out of the 5 planned hospitals for new breast cancer service had started providing full provision of services increasing the total number of hospitals currently providing breast cancer treatment service to 16. To increase cancer radiotherapy service sites out of planned expansion to 3 more cancer treatment site, 1 at Tikur Anbessa Hospital has started full service and another at Jimma Hospital has done all preparatory work and will soon start full service provision in the first quarter of 2014. The total number of hospitals providing childhood cancer in the country has reached five with the two new additions at St. Paul and Gondar Hospitals.

To increase the service uptake, the Combat Cervical Cancer (3C) Initiatives led by the Minister and State Minister of Health was launched in EFY2013. A weekly performance monitoring and twice monthly webinar was conducted as part of the 3C campaign. In this fiscal year a total of 160,290 women aged 30-49 were screened for cervical cancer which is about 28% of a plan i.e. 578,778 and only 1.2% of illegible women. Despite almost tripling 2012 performance of 59,241, the 2013 performance is not proportional with the 1041 service providing facilities. From the total screened, 148,441 (92.6%) had a normal cervix, while the remaining 7.4% has either precancerous lesion 9,222(5.8%) or cancerous lesion 2,627(1.6%) %). About 67% of women with pre-cancerous lesions were treated with either Cryotherapy or LEEP.

Regarding human resource for cancer care, training program for cancer radiation-treatment technologists was started in collaboration with Addis Ababa University and Kotebe Metropolitan University. In-service capacity-building training was given for 55 zonal cervical cancer focal person on program management and basic cervical cancer training for 688 health workers. A number of another training: on a protein based cervical cancer-screening test, HPV DNA testing, LEEP, Cryo and LEEP machine maintenance and thermal ablation were provided for health facilities staff.

Cancer chemotherapy subsidy drugs were purchased at a cost of 2.5 million USD and were distributed to the 16 cancer chemotherapy centers. Additionally, cervical cancer supplies like Acetic Acid (10,000 liters) and Cryotherapy machine maintenance tools were distributed.

Eye Health

In Ethiopian cataract, trachoma, refractive error and glaucoma are the leading causes of blindness. Five tertiary and 47 secondary public eye care units are serving the highly in need of people with eye problems in the country.

The development of second eye health strategy aligning with HSTP II was initiated considering lessons learnt from 2016-2020 eye health strategic plan implementation. To strengthen standardization of eye health service delivery cataract surgical guideline was prepared, printed and distributed to health facilities and glaucoma toolkit was developed and launched. To equip the eye care units, 53 eye operation microscopes were procured and distributed for hospitals; glaucoma diagnosis and treatment equipment and supplies were given to Debre Tabor and Felege Hiwot Hospitals; Optical workshop instruments were supplied to Maichew Hospital in Tigray Region.

The national eye-health service assessment was done at 35 secondary and tertiary eye care centers selected from all regions. The objective of assessment was to assess the performance of the sites, identify major challenges and generate evidence on eye health service. The report, which was submitted to MoH senior management, indicate major successes, performance gap and challenges. The major identified challenges were shortage of human resource, shortage of equipment, equipment maintenance problems and supply interruptions of consumables for cataract surgery and other eye health services.

From the cataract backlog, a total of 33,882 (about 14% increase from 29,632 performance of 2012) cataract surgeries were provided, which is 17.5% against 194,144 annual target. Additionally, 92,194 (60% are male while female account 40%) patients were treated for glaucoma and a total of 70,003(56% are male while female account 44%) were treated for refractive and ocular muscle related disorder.

NCD prevention and control of Non-Communicable Disease

Challenges

- Absence of strong NCD coordination unit at RHB and woreda structures
- Shortage of budget for implementation of NCD program at RHB, Zonal and Woreda level
- Low awareness of the policy makers, HCWs and the community on NCDs and risk factors still remain a challenge
- Poor service uptake, which is not proportional to service expansion
- Poor equipment maintenance and calibration system
- Poor recording and under-reporting of data and weak performance monitoring and evaluation of NCD activities
- Gaps in referral and linkages to NCD/chronic follow up clinic

Way forward

- Advocate for revision of NCD structure at RHB and woreda levels and allocation of adequate fund
- Use EPHCG implementation as an opportunity to strengthen integration of NCD service delivery in primary health care
- Conduct awareness creation campaigns on NCDs and Risk factors at all levels targeting the public, HCWs and political leaders
- Develop a multisectoral strategic action plan on NCDs and Risk factor;
- Finalize the unhealthy diet proclamation on salt, sugar, saturated fats and trans fatty acids
- Improve documentation, recording and reporting of NCD data
- Strengthen NCD commodities forecasting and procurement
- Conduct the national NCD STEPS Survey
- Expand secondary eye care centers to emerging regions

3.10. Mental Health

Mental health promotion, prevention, and management of common mental health problems such as depression, bipolar disorder, and schizophrenia are among the top priorities in HSTP-II. To address the mental health problems, the national mental health strategy (2020-2025) preparation was finalized and launched in July 2021. About 1,000-printed copy of the document was distributed to key stakeholders.

Low public awareness on mental health has been affecting service seeking behavior. Hence, mental health and neurologic disorder awareness creation to the public was conducted using different methods such as developing spot message and airing for about two months by ETV. Additionally, a high-level advocacy and media briefing during the world mental health day commemoration was done under the theme of "Move for mental health, increased investment in mental health"and world epilepsy day commemoration event. On top of this, facility level health-education material on mental health was developed to enhance provision of health education on mental health topics.

School or university based health club can play great role in increasing awareness creation to peers and minimizing substance use and drug addiction. Cognizant of this in 2013 MoH has worked with Ministry of Science and Higher Education (MOSHE) and Food and Drug Administration Authority (FDA) to establish anti-drug club in 10 Ethiopian Public Universities. So far anti-drug club term of reference was drafted and shared to stakeholders for its enrichment. Khat addiction prevention and control directive was also prepared in this fiscal year.

Capacity building raining on mhGAP was given for federal prisoner health workers and five regions (SNNP, Sidama, Gambella, BG and Afar). Similarly, in-service training on Epilepsy was given for a total of 140 health workers. Currently about 35% of hospital and 10% of health centers are proving mental health service. Mental health topics were included in the HIV program in-service training materials to strengthen mental health service integration with HIV care and treatment. In this reporting period, 248,080 and 278,799 patients have received treatment for mental health disorder and neurological illness respectively. Schizophrenia account for more than half (53%) reported mental disorder while almost all-individual treatment for epilepsy i.e 272, 999 (98%) were diagnosed to have epilepsy and recurrent seizure. Additionally 444 (46% male and 54% female) patient have received psychotherapy, which indicate that currently mental health intervention is primary focused on medication only.

Table 18. Nationally reported mental and neurological illness by sex during 2013 EFY

Sr. #	Reported mental & neurological illness	Male	Female	Total
1	Psychosis	100,344(58.4%)	71,617(41.6%)	171,961
2	Depression	22,256(47.7%)	24,367(52.3%)	46,623
3	Bi-polar disorder	14996(50.8%)	14500(49.2%)	29,496
4	Epilepsy	158,892(57%)	119,907(43%)	278,799
Total				**526,879**

Challenges

- Absence of well-established structure for mental health program at regional and sub-regional level
- Shortage of budget for mental health program at all level
- Lake of motivation among stakeholders in the process of integrating mental health with communicable and none communicable disease program
- Limitation on using routinely reported data for mental health program, monitoring

The way forward

- Continue advocacy, social mobilization and behavioral change interventions to create public awareness on mental health and mental illnesses
- Advocate toward improving budget and resource allocation for mental health program and service delivery
- Advocate for the establishment of well-defined and functioning mental health structure at region and sub-regional level
- Work toward further integration of mental health service in the primary health care service delivery
- Improve routine monitoring of mental health and mental health research

3.11. Prevention and control of Neglected Tropical Diseases

Prevention and Control of Neglected Tropical Diseases (NTDs)

HSTP II identified schistosomiasis, soil-transmitted helminthiasis, onchocerciasis, podoconiasis, lymphatic filariasis, leishmaniasis, trachoma, scabies, and snakebite envenoming for control and elimination. In addition, dracunculiasis (Guinea worm disease) is targeted for eradication during the HSTIP II period. Priority interventions, which are under implementation for NTD prevention and control are preventive chemotherapy, transmission control, innovative and intensified case management, transmission containment, prevention of zoonotic diseases, vector ecology management, social and behavioral change communication and WASH. Moreover, service integration, multi-sectoral approaches and large-scale treatment campaigns or mass drug administration were under implementation. The major key achievements in the first year of HSTP II period are described below.

Preventive chemotherapy of neglected tropical diseases (PC-NTDs)

Trachoma

As part of the SAFE (Surgery, Antibiotics, Facial cleanliness and Environmental improvement) strategy, close to 20 million people get Zithromax treatment in 363 endemic districts in 2013 EFY.

In addition, surgery was done for 34,077 (45%) people with Trachomatous Trichiasis (TT), while facial cleanness was integrated with the WASH and TT surgery interventions. According to 2020/21 trachoma impact survey (TIS), 256 Woredas stopped MDA by achieving the WHO TF elimination threshold of below 5%. To accelerate TT surgery, 183 health workers were trained and deployed as integrated eye care workers for woredas with high TT backlog.

Figure 32. Trachomatous Trichiasis screening and Surgery at community level, Photo, 2013 EFY

Onchocerciasis and Lymphatic filariasis

In 2013 EFY, over 17.7 million people treated with Ivermectin drug for the prevention of onchocerciasis in 217 woredas and 6 refugee camps. In addition, 3,284,519 people in 37 Woredas were treated for lymphatic filariasis, which is close to 50% of the target. In addition, over 1,015 individuals received hydrocele surgery and 15,780 received Lymph edema management. In 2020/21 according to the Impact survey, 31 Woredas stopped MDA by meeting the threshold.

Schistosomiasis (SCH) and Soil transmitted helminthiasis (STH)

In 2013 EFY, a total of 6,977,208 (84%) people treated for soil transmitted helminths in 348 (99%) districts. In addition, School age children in 22 woredas of "Gashyero" Project in Wolayita Zone in SNNP region treated for STH and SCH with therapeutic coverage of 93% and 91.5% respectively.

Leishmaniasis

In 2013 EFY, a total of 1,178 visceral and 1,389 Cutaneous leishmaniasis patients received treatment with cure rate of 84.5% and fatality rate of 2.8%. Also, then the same year, the total number of treatment centers has also increased from 28 to 29 for visceral leishmaniasis and capacity building provided for 275 health workers on case management, data recording and reporting procedure.

Other NTD related activities

- Epidemiological survey is undergoing in 134 and data collection completed in 120 Onchocerciases endemic woredas
- The launching of the Trachoma advisory group and first meeting was conducted
- NTD-WASH integrated to all interventions and best experience was documented and shared with regions
- The 3rd edition of the national NTD master plan was finalized inline with the HSTP II
- Different SOPs were developed for COVID-19 mitigation in NTD interventions

Challenges

- MDA and Survey interrupted due to COVID-19 pandemic and security challenges
- Inadequate coordination and co-implementation of WASH and NTD interventions impeding efficient use of limited resources ultimately slowing progress towards set goals and targets
- Limited resource for morbidity management and disability management
- Scarcity of resources for effective vector control measures
- Inadequate surveillance system for effective monitoring of progress
- Weak supply chain management system(reverse logistic) at all level
- Poor data recording, entry, reporting and use at all level

Way forward

- Finalize the 3rd edition of the national NTD Master plan
- Strengthen coordination and co-implementation of WASH-NTD interventions at all levels
- Strengthen multi-sectoral coordination and promote community engagement
- Strengthen domestic resource mobilization and partnership
- Strengthen integrated mass drug administration for PC- NTDs

3.12. Clinical Services

Hospital Leadership, Management and Governance

The major interventions planned to strengthen the leadership, management and governance of hospitals were to enhance the capacity of hospital senior management team and strengthen hospitals board functionality. To this aspect, capacity building trainings were provided for selected 24 hospital senior management team members (and total of 426 executives) on different hospital improvement programs and initiatives. Contextualized quality improvement plans were developed based on the identified gaps. In addition, Hospital Governing Board Implementation Manual was prepared and introduced to hospitals, a follow-up assessment had been conducted, and finding were discussed with regional health bureau representatives.

Clinical Leadership

National clinical leadership baseline assessment was conducted in the reporting year and based on the assessment findings; Clinical Leadership Improvement Program (CLIP) implementation manual and training Guidelines have been developed. Currently, a pilot implementation is started in selected 12 hospitals.

Access to Specialty and sub-specialty Service

A first in its kind, ten years National Specialty and Sub-specialty Service Road Map is prepared and launched in the fiscal year. The aim of this document is to improve access and ensure the quality of specialty/subspecialty services at all levels of the health care system; considering the economic, social and epidemiological realities. Moreover, Basic Dermatological Care and basic ophthalmologic care training manuals and pocket clinical guidelines have been prepared through extensive engagement of senior specialists. In collaboration with regional health bureaus, dermatological care need assessment was done and financial support has been provided to fill existing resource gap. As part of the implementation process, basic dermatological (for 22 hospitals) and ophthalmological (20 hospitals) trainings were provided for General Practitioners and outpatient basic dermatology and ophthalmology services have been started on these hospitals. Compounding and diagnostic training on dermatological care was also provided to pharmacy and lab professionals. On the other hand, forensic psychiatry service has been initiated in four hospitals and two additional hospitals have finalized the preparatory phase to start the service.

Access to Rehabilitation Services

In 2013 EFY, a five year Rehabilitation Service Strategic Plan is developed. The main objective of this strategic is to ensure that person with disabilities and injuries have access to comprehensive quality rehabilitation services. In addition, the National Assistive Technology and Medical Rehabilitation Service Management guideline has also been developed. Accordingly, training was provided for regional rehabilitation center leaders. Along with the guideline, assistive technology specification list is developed for rehabilitation services such as mobility, vision, hearing and communication and cognitive services. Furthermore, organizational structure, legislative document and infrastructure renovation plan has been developed for the establishment of the National Medical Rehabilitation Center. Besides the documents, infrastructure expansion and renovation of the center is being carried out.

Diagnostic Service Improvement Initiative

As part of diagnostic service improvement initiative, the National Radiology and Pathology Services Management Guideline was developed with the engagement of senior experts and professional associations.

Hospital Service Improvement initiatives

The major initiatives planned for hospital service improvement includes finalizing the EHAQ 3rd cycle program, I-CARE and IPC. The national EHAQ validation was done on 44 hospitals and all recognized based on their validation score. In addition, best experiences were identified, documented and shared with regional health bureaus, hospitals and stakeholders based on the third cycle focus area.

I-CARE Program implementation comprehensive training was given for 24 selected hospitals on how to conduct I-CARE lab sessions. Twenty-two hospitals have completed the sessions and conducted an open day program. In addition, the National I-CARE Program Management Guideline has been developed. Furthermore, the national IPC policy, strategy and roadmap were also prepared and launched.

Tele-Health Service

The other key achievement in the reporting year is regarding the tele health services. The National Tele Health, Tele Radiology, Tele Pathology and Tele Dermatology technical and clinical guidelines were developed and training was given for seven teaching hospitals. As part of the pilot implementation, tablets were distributed to these hospitals.

Challenges

These key achievements in the year were gained passing through both internal and external challenges. Federal and University hospitals governance structure, shortage of budget to improve access and quality of specialty and sub-specialty service, limited access to health technology infrastructure, shortage of skilled work force in rehabilitation service, poor coordination and efficiency in improving diagnostic service were the key amongst all the challenges faced. Therefore, overcoming these challenges through an innovative approaches and well-designed improvement plans will remain to be the next priority.

OPD Attendance per Capita

OPD attendance per capita is one of the key health-service quality indicator, which is used to measure frequency of visit to the health facilities per person per year. It also indicates the availability and accessibility of health services. A low OPD attendance per capita is usually attributed to barriers such as physical accessibility, increased user fee and behavioral factors. Whereas a lower OPD attendance per capita implies poor service quality due to so many reasons such as lack of hospital beds, lack of proficient staff, unavailability of services, medical equipment and supplies.

In 2013 fiscal year, nationally, about 105, 662, 828 individuals have visited health facilities making the OPD attendance per capita 1.09. This is a relatively higher record when compared to the previous years, 0.9 in 2011EFY and 1.02 in 2012 EFY. A significant regional variation was seen in 2013EFY. The highest OPD attendance per capita was recorded from Addis Ababa (1.79), Amhara (1.49) and Harari (1.42). On the other hand, the lowest OPD attendance per capita was seen in Somali (0.25), Afar (0.35) and Gambella (0.40).

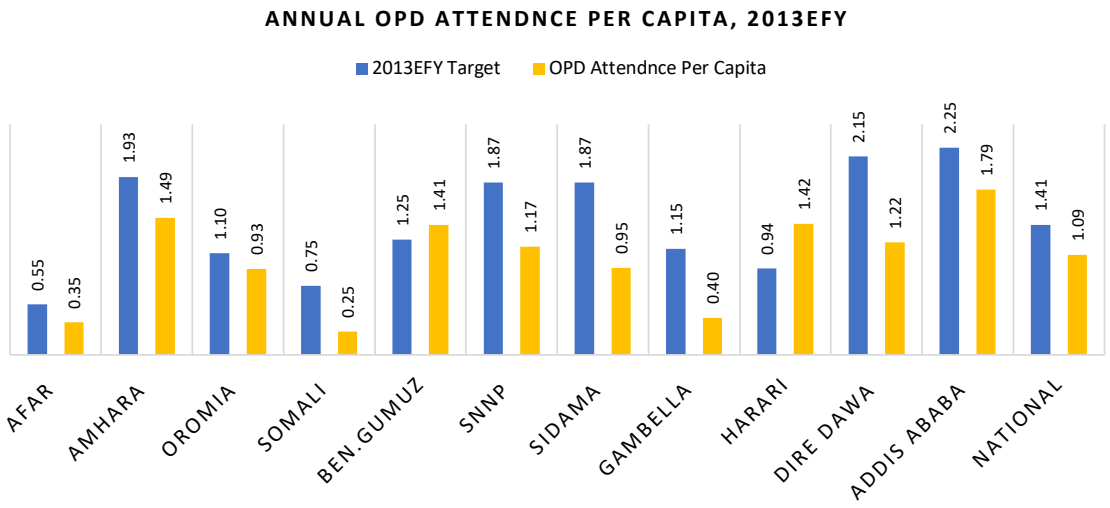


Figure 33. Annual OPD attendance per capita, 2013EFY

Average Length of Stay (ALOS)

The Average Length of Stay is an indicator, which is often used to measure efficiency in health service provision. It is the average number of days patients spend in the health facilities.

In the 2013EFY, the national annual average length of stay (4.63) has shown a slight increment as compared to the previous year (4.57). A higher ALOS is reported from Addis Ababa (5.80) and Amhara (5.02) and the lowest ALOS was recorded from Somali (2.82) and Benshangul Gumuz (3.24).

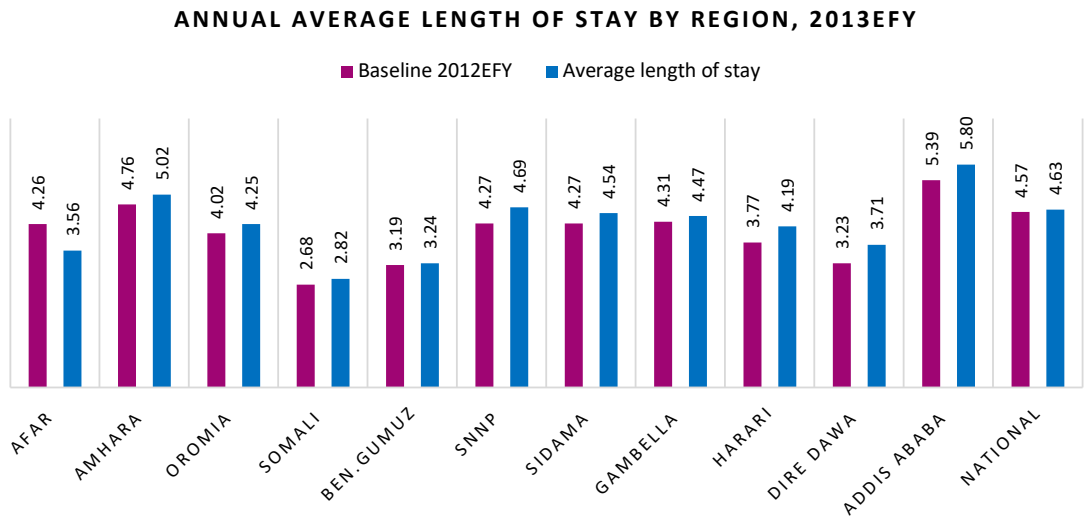


Figure 34. Annual average length of stay by region, 2013EFY

Bed Occupancy Rate (BOR)

Bed occupancy rate is an indicator used to measure inpatient-service efficiency. The international standard set for the hospitals BOR is 80 – 90%. A lower BOR of this range is considered to be least efficient and a higher BOR that the upper range is regarded to have poor inpatient care management and overstated length of stay.

Though the annual hospitals BOR could not make it to the optimal range, it has shown a fair level of increment when compared to the previous years. In this reporting fiscal year, the annual hospitals BOR is found to be 55.0% with the highest being recorded in Harari (66.9%) and the lowest in Afar (28.6%).

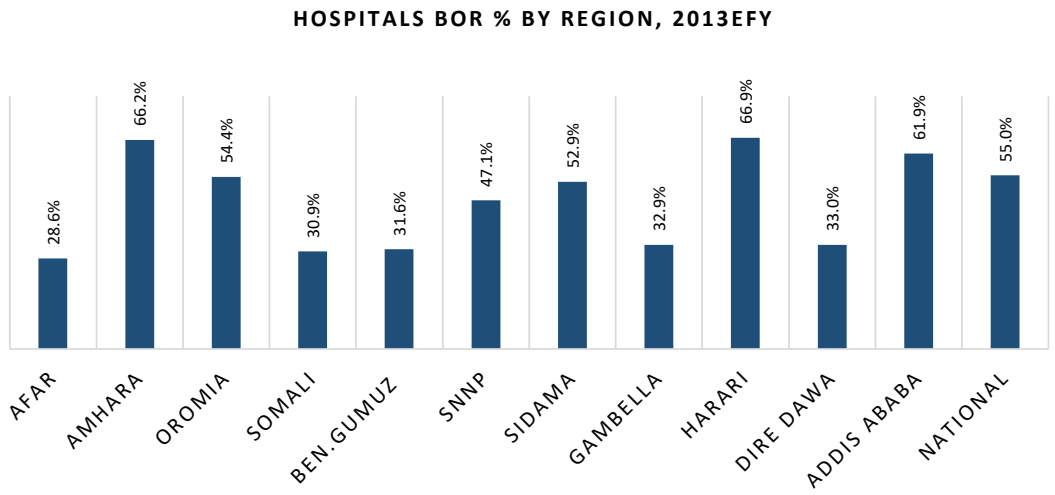


Figure 35. Hospital Bed Occupancy Rate (BOR) by region, 2013EFY

2.13. Emergency and Critical care services

Emergency care system is an essential part of universal health coverage. It is the first point of contact to the health system for many. A well-organized emergency and critical care service is a key mechanism to reduce preventable deaths and disabilities. Recognizing this fact, the ministry of health has designed various initiatives, which aims to improve the country's emergency and critical care services. Major activities performed in the 2013 EFY are presented in this section.

Flagship initiatives on emergency and critical care service

In 2013 EFY, the ministry of health has designed and implemented two flagship initiatives namely the Addis Ababa pre-facility ambulance service improvement project and the Major Cities Emergency and Critical Care Improvement Program (**MECIP**).

1. The Addis Ababa pre-facility ambulance service-improvement project

This project was initially designed in response to the high COVID 19 case burden in Addis Ababa. The project was designed to facilitate easy access to the ambulance service for the acutely ill. With this aim, different activities have been conducted under this project and results were achieved.

- A project implementation document and various training manuals were developed
- A study has been conducted in Addis Ababa on the utilization of ambulance service by the community

- A workflow process has been developed to integrate the Addis Ababa pre-hospital project with the COVID 19 homebased isolation care (HBIC)
- Capacity building training has been given to 153 health professionals working on basic ambulances, 40 professionals working on advanced ambulances and 16 call handlers
- Ambulance stations are under construction at nine sub-cities in Addis Ababa
- Analog system has been employed to initiate the call center service until the bidding and procurement process for a modern call center technology. The emergency number "633" has been designated for this service and calls made through other emergency numbers, 8335 and 6406, are being directed to ambulance dispatchers located at the sub cities
- 23 ambulances with basic emergency equipment have been assigned for this service by Addis Ababa City Administration Health Bureau and 63 professionals are hired
- Service performance indicators were developed, and regular reports are being gathered. Moreover, performance review workshops were organized engaging all relevant stakeholders
- The bidding process has been initiated for the branding of ambulance service and initial document has been developed
- All relevant stakeholders were engaged as part of creating a sustainable structure for the pre-hospital emergency services in the city

2. The Major Cities Emergency and Critical Care Improvement Program (MECIP)

The major cities emergency and critical care program is the other major initiative undertaken by the ministry of health to improve the emergency and critical care service. After its official launch, this program has continued its second year of implementation in the five pilot cities: Jimma, Bahirdar, Mekelle, Hawassa and Harar. The MEICIP program has created a unique platform for communication and collaboration among relevant stakeholders for emergency and critical care service improvement. It has also created an opportunity for the universities in these cities to take the lead on the national program, which greatly benefits the host community.

This program was successful enough in creating a sense of ownership among various stakeholders and was insightful that emergency care goes beyond the facility-based emergency services.

The major activities and achievements of the MECIP program are presented below:

- City based steering committee and communication and collaboration forums have been established in all cities
- Benchmarking and experience sharing visits to emergency and critical care services in Addis Ababa have been arranged for city representatives
- Functional ambulance call and dispatch centers have been established in all cities with a four digit emergency number
- Five basic and five advanced ambulances have been distributed to these cities
- The web-based referral system has been piloted in these cities and 30 liaison officers in Bahirdar and 50 from Hawassa have received capacity development training
- Continuous program performance monitoring has been conducted through regular supportive supervisions, virtual national steering team meetings and program review meetings
- Various capacity-building trainings have been given under the MEICIP program in these cities.

Major achievements of MECIP

- Ambulances were allotted for this specific program and professionals were trained
- A significant improvement was realized on ambulance response time
- Community awareness-creation campaigns have been conducted using all types of media including local radio and TV programs, Billboards, T-shirt, face masks etc.
- Renovations on the emergency service units including installation of mechanical ventilators (Jimma)
- Quality improvement projects were designed and implemented
- City wide disaster response drill has been performed and a disaster store is established (Harar)
- A stand-alone emergency and critical care service center (Harme emergency center, Harar) has been established with 156 rooms, 97 beds, 2 advanced ambulances, 2 operation theaters, X-ray, ultrasound and an advanced laboratory service.
- Referral service audit has been conducted and city-wide service directory has been developed (Bahirdar)
- Central oxygen delivery system has been established (Hawassa and Adare hospitals)

To scale up such an endeavor, additional eight cities were selected based on set of criteria. Baseline assessment, action plan development and program costing have been conducted in these cities. Program implementation of these sites has been officially launched after an agreement was signed between the ministry and the implementing stakeholders (city mayors, regional health bureau heads, university presidents and hospital administration).

Community ownership and participation on emergency and critical care services

"First aid day" and "Road traffic accident victims' day" were celebrated to enhance community awareness and ownership on emergency and critical care services. Health education messages on injury prevention, burn care and ambulance utilization were broadcasted through various media. A documentary video on MEICIP has also been developed and shared on public media.

Pre-facility emergency services

In the 2013 EFY ambulance service was given to 917,833 clients and ambulance response has been given to 95.2% of the calls received this year.

Nationally there are a total of 4,011 ambulances under governmental and non-governmental organizations. Among these, 83% are fully functional. Ten advanced ambulances have been procured by the ministry of health and distributed to Addis Ababa and the five MEICIP cities. Two advanced ambulances are assigned under the ministry of health for national emergency response.

Basic ambulance equipment has been distributed (for 400 ambulances) to all regions and city administrations and additional equipment for 700 ambulances is under procurement process. Activities are underway for the renovation of the internal structure of basic ambulances for better functionality.

Facility based emergency service

WHO Basic Emergency Care (BEC) tool kit implementation has been initiated on 10 primary hospitals. From these hospitals, 195 health care workers have received basic emergency care training. This training was also given to 347 healthcare workers from 99 health centers selected from areas with high incidence of road traffic accident. In the implementation, use of WHO checklist has been initiated, triage and resuscitation services reorganized; and support was given to avail emergency drugs and equipment at these sites.

In this fiscal year, facility-based emergency service was given to 3,725,090 clients. The annual national emergency mortality rate is 0.45%. Exceptionally high emergency mortality was observed from Somali (3.08%) region and the lowest was recorded in Benshangul Gumuz with 0.16%. The second and third highest emergency mortality were recorded from Afar (1%) and Harari (0.82%).

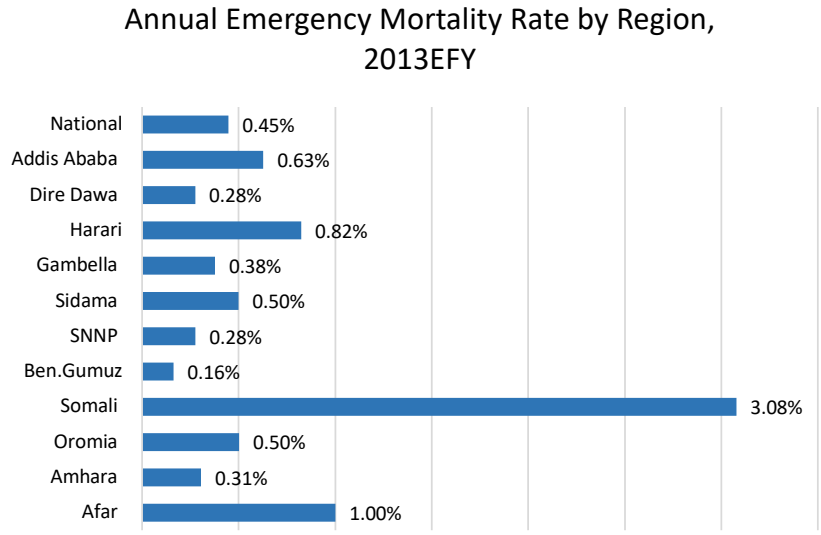


Figure 36. Annual emergency mortality rate by region, 2013EFY

Surge capacity development

To improve the preparedness and response of health facilities to mass causality incidents, capacity development training has been given to health care workers from Addis Ababa and the five MEICIP cities. A citywide preparedness and response plan have been developed in these cities and drills have been conducted to test the practicality of the developed plan. Mass-casualty management training has been further cascaded to 15 regional hospitals with high occurrence of mass casualty incidents. Supportive supervision and tabletop drills have been conducted at these hospitals to improve their preparedness and response.

Critical care

Service assessment and leveling of Intensive Care Units (ICUs) has been conducted at 51 health facilities. Out of these, only one hospital has a level one ICU, 11 hospitals have level two ICUs and 39 hospitals have level three ICUs. Financial support was provided to three hospitals to improve the level of their ICUs. In the 2013 fiscal year, 12 hospitals have newly introduced ICU service. Capacity development training has been given to 1,479 professionals from all regions and city administrations.

Onsite mentorship and coaching was conducted to 42 hospitals with high ICU mortality rate. As a result, ICU renovations have been initiated at certain sites, ICU service quality-improvement projects have been designed, separate COVID-19 ICUs have been established and resource sharing among hospitals has been facilitated.

Regarding the COVID-19 pandemic response, COVID-19 ICU training of trainers was given to 25 health care workers and the basic training was given to 204 professionals. Two hundred fifty (250) mechanical ventilators have been distributed to regions. In addition, service assessment was conducted at 64 COVID-19 treatment centers and based on the finding technical support was given to 15 centers.

The national annual ICU mortality rate for the 2013EFY was 25.5%. Afar and Gambella have recorded the highest ICU mortality rate with 52.6% and 50% respectively. On the other hand, the lowest ICU death were recorded from Harari (15.5%) and Oromia (18.7%). Of the total ICU deaths documented in the reporting period,

47.6% of them were on mechanical ventilator support. In Somali region, three-fourth (76.1%) of the ICU deaths were on mechanical ventilator support. These findings suggest that addition efforts and interventions may be required to increase the service quality of ICU and mechanical ventilator utilization.

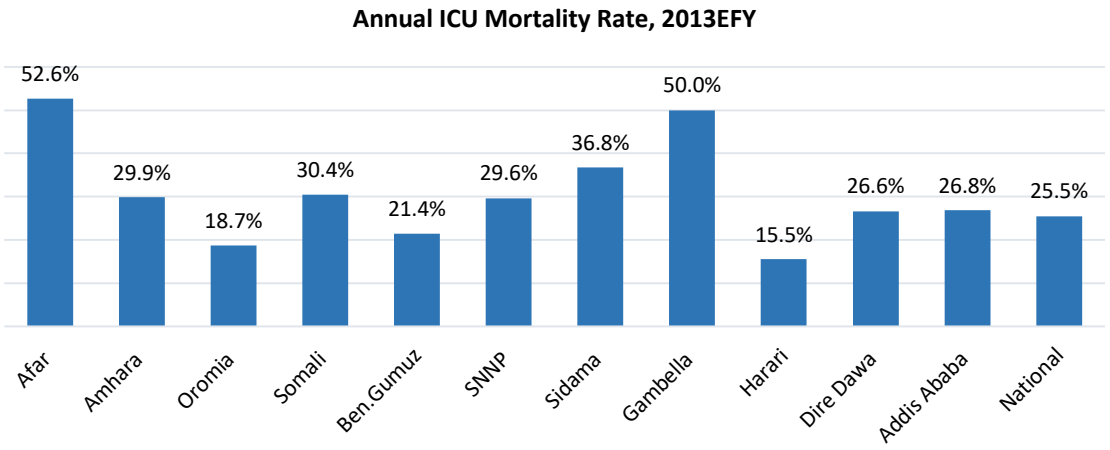


Figure 37. Annual Intensive care unit (ICU) mortality rate by region, 2013 EFY

Road Traffic Injury

Among the total road traffic injury cases in the fiscal year, one-fourth (27.0%) of the injuries were due to motorcycle accident. On the other hand, 44,699 (17%) of the injury cases were attributed to vehicle accidents. Accidents on pedestrian also contributed 11% of injury cases in the year. Among the regions, Oromia (37.1%) has the highest percent share among the regions with 100,608 road-traffic injury cases. The second highest share is from SNNP (29.5%) with 80,092 total road-traffic injury cases. Sidama and Amhara also take the third- and fourth-percent share with 13.1% and 10.3% respectively. The fewest road-traffic injury cases were reported from Gambella with 416 (0.16%) cases.

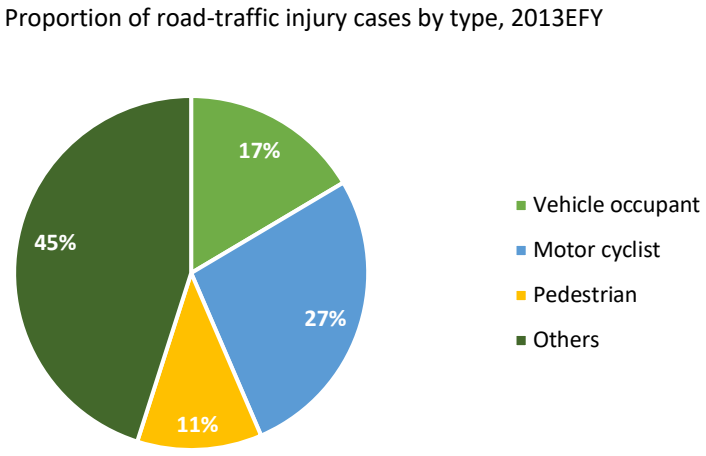


Figure 38. Proportion of road-traffic injury cases by type, 2013EFY

Third party insurance

In 2013 EFY, 136 health facilities have started to use the third-party insurance scheme. From these facilities, 15,990 clients have received the service with the cost of 14,584,852.00 Birr. In order to strengthen this service with reliable use of data, registries and recording and reporting formats are being developed. Moreover,

assessment has been conducted with stakeholders to raise the third party insurance coverage from 2000.00 Birr to 8000.00 Birr per person.

Referral service

National service directory application software has been developed for the public, which can work seamlessly with other software developed by MOH and are accessible on smart phones and desktop computers. Furthermore, a web-based referral system has been developed and piloted in MEICIP cities. A referral directory and patient transfer protocol have been developed for COVID-19 treatment centers in seven regions. In 2013 EFY, there were 928,922 referrala, among which 30% of them were emergency referrals.

Challenges (Emergency and Critical care services)

The shortage and lengthy procurement process of emergency and critical care equipment and drugs, inappropriate utilization of ambulances and the current conflict in the northern part of the country were the pertinent ones among the challenges faced in the year.

Way forward

The ministry of health has launched a five-year strategy for emergency and critical care services. In the coming year, this strategy will go into implementation to strengthen and expand the pre-hospital system and to improve facility-based services with special emphasis on the community ownership and engagement. Focus will also be given to strengthen coordination and collaboration among several stakeholders for emergency and critical care. There are also various activities planned to strengthen the surge capacity and disaster management with the aim of building a resilient health system.

3.14. Blood Services

In 2013 EFY, blood service in Ethiopia has registered remarkable results despite the COVID 19 pandemic and security issues in our country. The service has successfully mitigated the risks and has managed to ensure sustainable accessibility of safe and adequate blood and blood products to recipients. Various blood and blood related services were implemented in the fiscal year. The major services include:- blood donation, collection and counselling service; blood component production, distribution and testing; promotion of appropriate clinical use of blood, improving the quality and safety of blood and blood products, expanding blood bank service in different parts of Ethiopia and other related activities. The major activities and achievements in 2013 EFY are described below.

1. **Governance and National Coordination of blood transfusion service**

The blood bank transformation plan II development was finalized, and its implementation was started in 2013 EFY. In order to improve evidence-based decision making in blood services, a new blood bank reporting and monitoring tool called "***electronic* Vein to Vein Reporting Tool** (eVVRT)" was developed and launched in the fiscal year. Implementation of eVVRT has improved the availability of quality data to monitor, evaluate and enhance the performance of blood services.

The 8th and 9th Blood Bank Service Annual Review Meetings were conducted in Gondar town (Tikimt 2013 EFY) and Arbaminch town (Sene 2013 EFY) respectively. The performance of the service and next planned activities were reviewed during the meetings and recognitions given to best performing blood banks and collection sites. The 2021 World Blood Donor Day was also commemorated in conjunction with the ARM in Arbaminch town.

Blood Safety Information System (BSIS) was scaled up and implemented in Adama and Dessie blood Banks as an initial phase to expand the system to all blood banks across the country. This will greatly improve the service and reinforce the coordination and data sharing between sites to sustain effective and efficient use of blood.

Figure 39. World Blood Donor Day Commemoration event at Arbaminch Town; June 14, 2021

2. Blood Donation and Counseling Service

In 2013 EFY, 281,760 units of blood was collected, of which 99.8% was collected from voluntary non-remunerated blood donors. From the total blood donated, 171,874 (61%) were male donors and 109,886 (39%) were female donors. The majority (85%) of the collected blood was collected through mobile blood collection and the rest was at blood banks and collection centers. Regarding the types of blood donors, there is a significant improvement in increasing the number of blood donors from replacement to voluntary donors. Ten years back, only 10% of the total units of blood collected was from voluntary blood donors and 90% was from replacement donors. The proportion of voluntary blood donors has increased from 18.8% in 2004 EFY to 99.8% in 2013EFY.

Every blood donation from blood donors is screened for transfusion transmissible infections as per the WHO recommendations. In line with this, the number of blood banks providing post donation counseling services to notify blood donors of their health status after blood donation has increased from 16 to 26 in the fiscal year. In 2013 EFY, the total number of donors who have received this service was 21,132 (7.5% of total donation).

3. Blood Component Production, distribution and Testing

One of the main objectives of blood bank transformation plan is increasing component production and improving its availability to health facilities and recipients. Component production includes converting whole blood to its components such as concentrate red cell, platelet concentrate and fresh frozen plasma and cryoprecipitate. In 2013 EFY, from the total blood donated, 45,293 units (16%) was converted to its components. The number of blood banks that perform component production has reached 17. Eighty five percent of the demand for component blood from health facilities was satisfied in the fiscal year.

All the blood donations were tested for the four transfusion-transmissible infections (TTIs) Markers. From the total teste donations, 12,108 donors (4.3%) were tested positive for TTIs. Among those who were tested positive for TTIs, the majority (56%) were tested positive for hepatitis B, followed by syphilis (27%). The Ethiopian blood bank will strengthen the pre-donation education and counseling services to increase donors' awareness and further reduce blood wastage. In 2013 EFY, the total blood discard rate from the total collection due to different reason was 9.7 %.

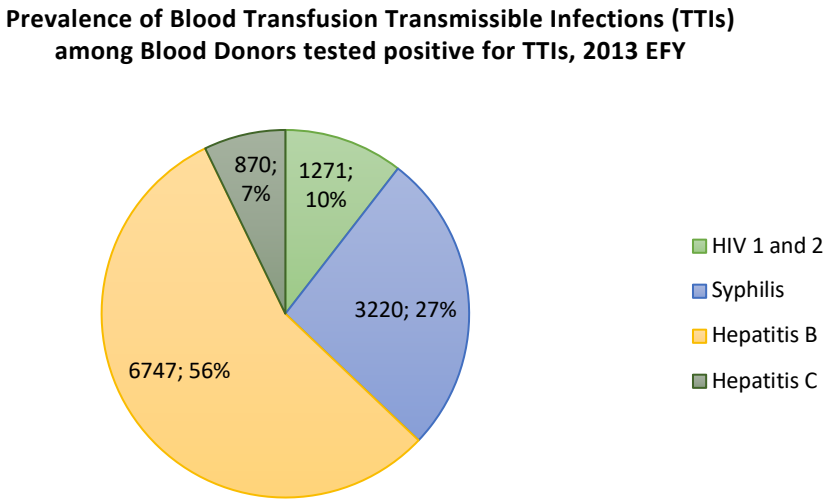


Figure 40. Prevalence of Blood Transfusion Transmissible Infections (TTIs) among Blood Donors tested positive for TTIs, 2013 EFY

4. Promotion of appropriate clinical use of Blood

In order to promote appropriate clinical use of blood, technical support was provided for 80 health facilities to establish functional Hospital transfusion committees. In the fiscal year, 65 adverse events related to blood transfusion has been reported from health facilities. Detailed analysis and investigation have been conducted for each reported adverse event and feedback was given to the reporting health facilities. Mentorship and supportive supervision was provided to 74 health facilities (50 in Addis Ababa). Training was provided to 100 health professionals on appropriate clinical use of blood.

5. Blood quality assurance and safety

The national blood bank service has provided support to regional blood banks to implement internal quality control testing. In 2013 EFY, 20 blood banks have started performing internal quality control.

National quality-assurance scheme samples were sent to 27 regional blood banks to assess and strengthen the quality of laboratory testing across sites. Preventive maintenance and installation service was provided to regional blood banks. A training on quality management system was provided to 38 regional blood bank quality control experts. In addition, quality accreditation preparation assessment and mentorship visits were conducted at 3 regional banks.

6. Expansion of Blood Bank service

- The number of blood banks that collect blood from voluntary blood donors has reached 43 (figure below)
- The number of blood banks that perform component production has increased from 10 in 2011 EFY to 17 in 2013 EFY

1st Generation	
1. ብሔራዊ ደም ባንክ	1962 ዓ.ም
2. ሐረር	1969 ዓ.ም
3. ጅማ	1978 ዓ.ም
4. ይርጋለም	1981 ዓ.ም
5. ደሴ	1982 ዓ.ም
6. ጎንደር	1982 ዓ.ም
7. ድሬደዋ	1982 ዓ.ም
8. መቀሌ	
9. ጅግጅጋ	1995 ዓ.ም
10. አዳማ	1996 ዓ.ም
11. አርባምንጭ	2001 ዓ.ም
12. ባህር ዳር	2003 ዓ.ም
በኢትዮጵያ ቀይ መስቀል ማህበር የተቋቋመ ደም ባንኮች	

2nd Generation	
1. አክሱም	ሐምሌ 2005
2. ሐዋሳ	ሐምሌ 2005
3. ሰመራ	ሐምሌ 2005
4. ባሌጎባ	ነሃሴ 2005
5. ደብረ	ነሃሴ 2005
6. ወሊሶ	መስከረም 2006
7. ነቀምት	መስከረም 2006
8. አሶሳ	መስከረም 2006
9. መቱ	ህዳር 2006
10. ሆሳዕና	የካቲት 2006
11. ደብረ ብርሃን	መጋቢት 2006
12. ደብረ ታቦር	ግንቦት 2006
13. ጭሮ	ሐምሌ 2006
14. ጋምቤላ	ሐምሌ 2006
ጤና ሚንስቴር ከኢ/ያ ቀይ መስቀል ማህበር ተረክቦ ስራ ያስጀመራቸው (ከ2005 — 2006 ስራ የጀመሩ	

3rd Generation	
1. ሐምራ	ሐምሌ 2010
2. ወላይታ	ሐምሌ 2010
3. ዲላ	ሐምሌ 2010
4. ወልድያ	ሐምሌ 2010
5. ከሚሴ	ሐምሌ 2010
6. መተማ	ሐምሌ 2010
7. ነገሌ ቦረና	መጋቢት 2011
8. ቡሌ ሆራ	መጋቢት 2011
9. አዋሽ	ሚያዚያ 2011
10. ጂንካ	ሐምሌ 2011
11. ሰቆጣ	ሐምሌ 2011
12. ሻሸመኔ	ነሃሴ 2011
13. ቦንጋ	ጥቅምት 2012
14. ግልገል በለስ	ጥቅምት 2012
15. ጎዴ	ጥር 2013
16. ሐርገሌ	ጥር 2013
17. ፊቅ	ሠኔ 2013
ከ2010 በኋላ የተከፈቱ ደም ባንኮች	

Table 19. List of blood banks in Ethiopia, 2013 EFY

Way forward/ major focus areas for next year

- Improve communication and incentive mechanism for blood donors
- Improve leadership and governance system
- Expand blood safety information system (BSIS) at regional blood banks
- Improve and expand electronic vein-to-vein reporting tool (EVVRT)
- Improve the availability of logistics
- Initiate blood cost recovery system

3.15. Laboratory Services

During HSTP II period, the health sector will continue to improve access to quality laboratory service through laboratory capacity building, quality assurance programs, infrastructure development and maintenance and expansion of basic and advanced lab services at health facilities. Moreover, a laboratory quality-management system, a step-wise accreditation process, preventive and curative equipment maintenance, and a laboratory information system will be implemented. .

The Ethiopian Public Health Institute is implementing a national laboratory quality-improvement program, through an internal and external quality assurance and accreditation programs. In 2013 EFY, 90 laboratories were planned to score 1-5 star level for SLIPTA; however below half, 44(48%) of them were able to achieve the minimum score level (9 Star-1; 20 got star-2; and 15 got star-3 levels). On the other hand out of planned 360 laboratories for external quality assurance (EQA), only 160(44%) of them scored minimum standards. In this reporting period, 17 (51%) out of planned 33 laboratory were certified for ISO 15189.

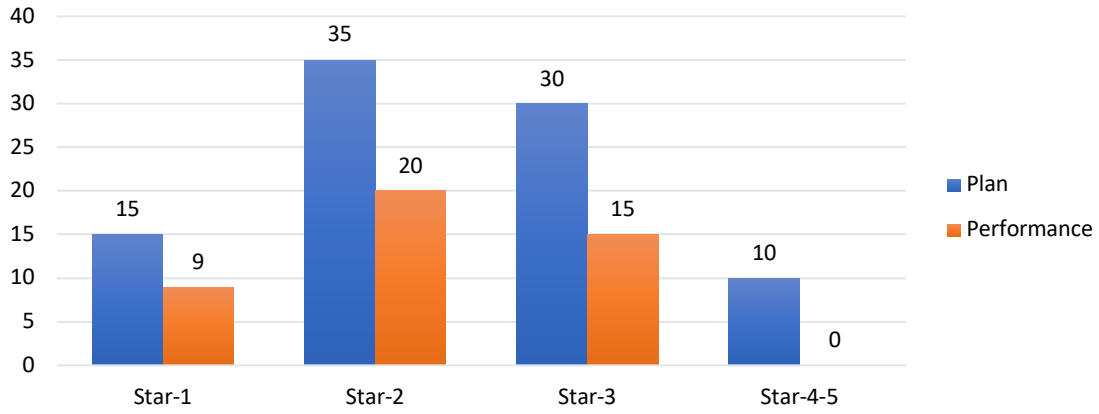


Figure 41. Performance of medical laboratories for SLIPTA in Ethiopia 2013 EFY

Strengthening laboratory information system (LIS) for 10 laboratory was planned while actually implemented in 8 (80%) and follow up support was provided by EPHI for six of hospitals which have already functional LIS.

Laboratory equipment management is one of the key areas for laboratory quality-improvement programs. EPHI has been performing tremendous activities on equipment management systems such as technical assistance provision in preventive and curative maintenance, calibration of a biosafety Cabinet (BSC) and negative pressure; and calibration of ancillary laboratory equipment.

Preventive maintenance was given for 216 (86.4%) laboratory machine out of 250 request; calibration of biosafety was done for 163 (73%) out of planned 230; annual calibration was done for a total of 50 laboratory; and preventive maintenance was done for 6 laboratory that have negative pressure system

Laboratory-equipment maintenance center with equipped personnel and required toolkit play an instrumental role in ensuring the laboratory service continuity. From EPHI supportive supervision finding trained bio medical engineers are available at regional level where as laboratory equipment maintenance center was not established in the majority of regions except at Addis Ababa (AA), SNNP, Harari, DireDawa and Afar. It took one to two weeks to get maintenance upon the request from laboratory department in AA while there is no system to timely track and fix non-functional medical equipment in other region especially in health facilities in Amhara and Afar where equipment's are not maintained for years. Skills and capacity gaps were also reported for new generation and sophisticated machines. Test menu was prepared and posted in the majority of visited health facilities (except health facilities in Afar and Sidama), but it lacks regular updating and information sharing system for interrupted tests and services.

The commonly reported non-functional laboratory equipment are chemistry machine, BSC, A25 bio system chemistry, Centrifuge, Microscope, Complete Blood Count (CBC) machine, Gen Xpert, SYSMEX, Hematology machine and Fax count. Recurrent service interruption was reported almost in all visited health facilities either due to lack of required reagents/kit or non-functional lab machine.

3.16. Health Service Quality and Safety

Quality and equity of health care continued to be the transformation agenda of the health sector in the HSTP II to build a high performing health system, which continually improves health outcomes and the public trust on the system. The implementation of the health care quality and safety agenda in the year 2013 EFY was guided by HSTP II priorities, the National Quality Strategy I review findings including the continuation of some uncompleted agenda of the first National Quality Strategy (NQS I) and saving lives through safe surgery (SaLTs). Accordingly, five major initiatives were prioritized and implemented in the 2013 EFY period.

Institutionalizing quality culture within the health care system

Though Institutionalization of quality culture in the health care system is a long journey to realize in settings like ours, different efforts have been conducted in the past periods, which spans from implementing improvement initiative to creating a structure that leads and coordinate the quality-of-care activities at all levels. As part of continuing the efforts in creating a culture in the health care system, the following major initiatives and activities have been implemented during the 2013 EFY;

- Development and launching of the National Health care quality and safety strategy II (2021-2025): National Health care quality and safety strategy was developed to continually improve health outcomes and confidence in the system through the realization of the following five Objectives:

    1) Improve evidence-based essential health care provision
    2) Improve people-centered Care
    3) Reduce harm arising from the care delivery
    4) Improve efficiency in the health care delivery
    5) Create a quality culture through continuous learning and improvement

- National quality coaching guide have been developed and introduced with the aim of enhancing quality coaching skills and components at different level of the health system
- Health facility accreditation-roadmap has been drafted with the determination of putting an illustrative futuristic pathway for health facility-accreditation system in the country
- To enhance quality culture at health facility level, technical support has been provided to conduct regular clinical audit, dashboard utilization, and onsite QI coaching and QI training
- The hospital clinical audit tool has been revised and clinical audit tool has been developed for health centers
- The 6th National Annual Healthcare Quality Summit was held since its establishment in 2007EC. It is one of the platforms where facilities and organizations share their experiences on quality and safety and continuous learning for a better outcome

Improving health care safety

The second national quality and patient safety strategy (NQPS) II defined patient safety as the absence of preventable harm from healthcare; and reduction of risk of unnecessary harm to an acceptable minimum (Adapted from WHO). With the aim of strengthening Healthcare safety practices in health facilities, the following major activities have been implemented during the 2013 EFY period,

- The second World Patient Safety day was celebrated on September 07, 2020 with the theme of: “Health Worker Safety: A Priority for Patient Safety” and the slogan of “Safe health workers, Safe patients”.
- Patient safety training material is developed for use by healthcare professionals

Establishing national health care quality hubs

The ultimate goal of the initiative is to create a center of excellence for health care quality and safety that are geographically accessible for the rest of health facilities and serve as a center for continuous learning and demonstration on quality and safety improvements. Accordingly, seven teaching hospitals (Tikur Anbessa,

Hawassa, Jimma, Ayder, Tibebe Ghion, St.Paul, and Hiwot Fana Hospitals) have been selected and continuous technical and financial support have been provided to build the capacity to become learning hubs in the country. Draft learning hubs initiative guidance document have been developed. Financial support was provided to six learning hubs for conducting quality improvement training, learning collaborative sessions, and QI project implementation. A total 6,000,000 ETB (1,000,000 for each Hospital) has been provided during the fiscal year. Basic QI training was given for 332 health professionals from these 6 learning hubs. In addition, on-site coaching and mentoring were also conducted to these learning hubs to design and implement QI projects and conducting learning collaborative sessions.

Saving Lives through Safe Surgery (SaLTs) initiative

The SaLTS strategic plan focuses on availing a package of essential and emergency surgical and anesthesia care at all levels of the Ethiopian health care delivery system. This initiative places special emphasis on improving service access through strengthening primary health care facilities to provide essential surgical care. Based on this, the following major activities have been executed in the year. Primary health care facilities were technically supported to initiate surgical services. Along with the Daycare Surgery guide, technical support was also given for selected health facilities to introduce day care surgical services. Rigorous supervision and mentorship have been given to RHBs and health facilities to improve surgical efficiency and effectiveness and to enable facilities to design and implement surgical QI projects. The outcome of the first SaLTs (2016-2020) strategy has been evaluated in terms of expanding access to safe, efficient and equitable surgical care. The second National Surgical Care Strategic Plan Saving Lives through Safe Surgery II (SaLTS II) 2021–2025 has been developed with the goal of reducing surgical related morbidity and mortality. This strategy also has 5 strategic objectives namely: Improve equitable access to safe surgical and anesthesia care, improve efficiency of surgical systems, improve effectiveness of surgical system, improve people-centered surgical care, and reduce harm arise from surgical care provision. Besides these, peri-operative mortality review guide has been developed to standardize and institutionalize peri-operative mortality audit and streamline the reporting mechanisms. Standard operating procedure (SOP) has been developed for surgical procedures. This SOP aims to achieve efficiency, quality output, and uniformity of performance while reducing miscommunication and failure to comply with health service standards and clinical Quality. Currently, many health facilities are trying to provide quality surgical services, but the services are far from being provided in a standardized and uniform manner. Therefore, to bridge this gap this standard operating procedure (SOP) manual has been developed to standardize and formalize the provision of Quality surgical services in health service delivery. In addition, PACU training manual has been developed to equip health professionals on up-to-date knowledge and skills to ensure the safety of patients at early stage of post-anesthesia recovery.

Maternal and Newborn Quality of Care (MNH QoC) initiative

The maternal and newborn quality of care (MNH QoC) learning network initiative was launched in early 2017 to operationalize the National Quality Strategy I agenda of improving Quality of Care for Mothers, Newborns, and Children following the launch of the National MNH quality of care Roadmap.

The goal of the Quality, Equity and Dignity for Maternal and Newborn Health initiative is to halve institutional maternal and newborn deaths in health facilities in selected learning districts and improve the experience of care over the strategic years.

The initiatives is implemented in selected 14 districts representing the agrarian, pastoralist, and urban setups in the country (3 - 5 learning health facilities per district with a total of 48 learning health facilities consisting of 8 referral & general hospitals, 12 primary hospitals, and 28 health centers). The WHO MNH QoC monitoring and evaluation framework was also adopted and implemented to track the implementation of the program and results that include fifteen common core indicators measuring provision of care, the experience of care and WaSH.

Since the launch of this initiative, establishment of TWG, development of MNH QoC standards and audit tool, development of national QI coaching guide, training, organizing semi-annual learning collaborative sessions and regular site level monitoring and coaching were conducted. The MNH QoC network implementation have shown promising results when the pre and post implementation performance is compared in the reporting health facilities.

- Pre-discharge maternal mortality ratio (MMR) per 100,000 live births declined by 17% (from 163 to 135 per 100,000 live births)
- Pre-discharge neonatal mortality rate (NMR) per 1000 livebirths decline by 5.4%, from 24.0 to 22.7 per 1000 live births
- Fresh stillbirth per 1000 births declined by 18%, from 19.7 to 16.1 per 1000 births

Major Achievements

Delay for elective surgical admission (in days) has reduced from 52.0 days in the 2012 EFY Period to 32.7 days in the 2013 EFY Period indicating a 37% reduction. Rate of surgical checklist utilization has increased from 80.7% in 2010 EFY to 90.3% in 2013 EFY.

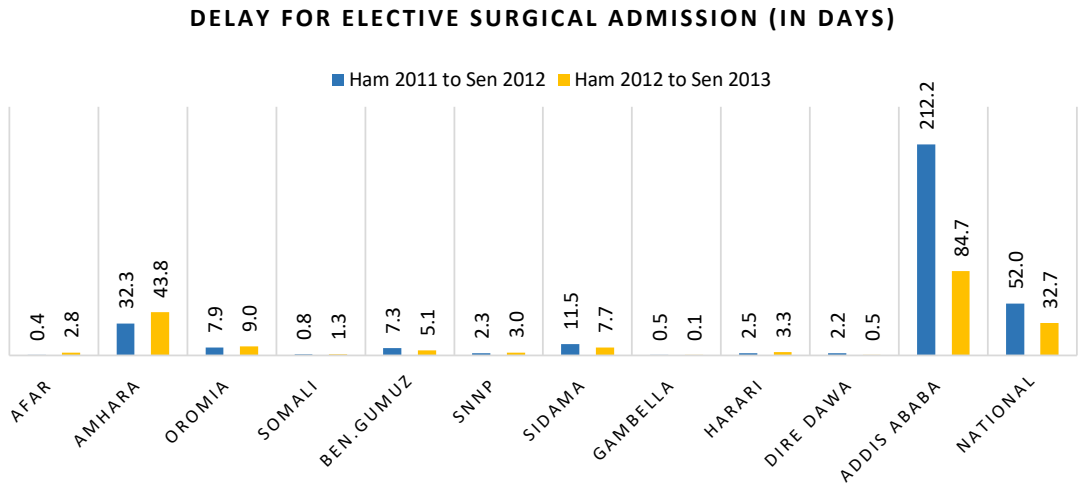


Figure 42. Delay for elective surgical admission (in days) by region

Major Challenges

- Lack of uniformity in quality structure at sub-national and health facility levels
- The emergence of the COVID-19 pandemic compromised the quality of care audit practice in the health care system.
- Inadequate Human resources for quality structure at all level

CHAPTER

LEADERSHIP AND GOVERNANCE

4.1. Regulatory System

4.1.1. Food, drug and medicine regulatory functions

The Ethiopian Food and Drug Authority (EFDA) through its five year (2013-2017E.C) Health Regulatory Sector Transformation Plan (HRSTP-II) works towards the realization of protecting the public from unsafe food, safeguarding the public from falsified, substandard and ineffective health products, protecting the public from tobacco and alcohol related health risks and attaining public confidence on food and health product regulation.

The major activities conducted during 2013 EFY plan period are presented as follows.

Quality and safety regulation of food

In the fiscal year, the regulatory functions focused on improving the registration and licensing of organizations that produce and import food items. Thus, in 2013 EFY, 79 child foods (infant formula, follow up formula and supplementary foods) and 900 different types of food were registered. Altogether, 979-market authorization and 1,900 pre-import notifications were issued. Moreover, 109 producers and 984 importers and distributors were issued license.

In addition, post-licensing inspections were carried out in 1,617 food facilities (568 food manufacturers and 1,049 importers and distributors). As per the plan, internal quality assurance system was conducted in 166 food factories as well as 355 food exporters, importers and distributors. Findings showed that 67.1 % of the assessed companies have established an internal quality assurance system. Low performance was registered because of the low interest of owners that may call for discussion with their associations.

Regarding the inspection and control of food market centers and retailer's, product based surveillance and inspection on oil, salt, honey, peanut butter, Moringa, Vinegar, Vimto at retail outlets was undertaken to ban illegal trade/trading. This was implemented in 14 rounds at a total of 49 towns and necessary administration measures were taken on 86 illegal and substandard defective products. Meanwhile, information about these defective products was disseminated to the public to prevent the public from using them and to the relevant stakeholders for administrative measures.

In addition, 17 illegal trade operators (nine food distributers, four un-iodized salt distributers, two flour factories, one illegal food importer and one retail outlet) involved in unethical trade practices in four different towns were caught red-handed and the necessary administrative measures were taken, in collaboration with the local customs offices and notification was given to the public through mass media.

During the plan period, consignment test was conducted for 36 food items (94.7 % of the plan). Besides, post-marketing test was undertaken for 417 samples edible salt, for 198 samples edible oil and for 32 samples of pasteurized milk, cheese, and yogurt. In addition, about 6.8 million tons of imported infant formulary and follow-up formulas, supplementary foods, raw foods items for processing, other imported foods such as salt were issued permits of entrance after passing the necessary quality control and safety certification.

Regulation of health products

In order to ensure provision of quality and safety of drug and medical equipment, registration and licensing of these products is essential. During the 2013 fiscal year, the Authority had planned to issue market authorization for 1,080 pharmaceuticals and 4,900 medical equipment, and out of which 779 (72%) pharmaceuticals and

2,891 (59%) medical equipment licenses were issued respectively. Moreover, as per the special pre-entrance registration request from government bodies, the Authority provided a certificate of registration for 487 medicines.

The other main activities of the regulation is to provide certificates of competency (CoC) to newly established health and health related services. Accordingly, one large and 69 small-scale pharmaceutical manufacturing, 376 medicines exporters, importers and distributors, and 87 medical devices importers and distributors fulfilled the necessary requirements, given CoC and issued new licenses. In addition, a new license was issued to 9 cosmetics manufacturers, 115 cosmetics importer and distributer.

To ensure provision and use of quality pharmaceutical and medical equipment, post-license auditing inspections were also conducted domestically and for foreign providers. As a result 10 medicines manufacturers, 886 medicines import, wholesalers and distributers, 91 small scale medicine items manufactures, and 121 medical devices import, wholesalers and distributers, 51 cosmetics producers, 186 cosmetics import, wholesalers and distributers were inspected. Fifty-eight foreign pharmaceutical manufacturers were also inspected.

To ensure the proper and rational drug uses and to take timely measures to avoid defective and substandard products, the Authority conducted an inspection and regulation of distribution, prescribing, dispensing and proper uses of drugs in 1,242 health institutions. In the fiscal year, the Authority undertaken supportive inspection at different health related institutions. For instance, support was provide to domestic pharmaceutical manufacturers nearby to enable them produce quality products for the foreign market. This will, in the long run, contribute to increasing foreign currency and to overcome foreign currency shortages of the nation.

During the plan period, consignment test of pharmaceuticals to ensure quality and safety was done for a total of 2,475 medicines samples (1,227 at head office and 1,248 in branch office). Out of the total tested, 2,457 (99%) complied the standard. Microbiological test was also done for 63 samples of medicines, and quality test for 42 sensitizers were made and all of the products met the standard. In addition, 167 (99%) out of 169 sample medical devices tested, 209 (95%) out of 219 sample condoms tested and 49 (56%) out of 87 sample gloves tested complied the standard. Similarly 11 medical devices for physico-chemical lab test from 98 different types of pharmaceuticals, 105 samples of nine types of medicines and 219 types of medical devices were tested for microbiological parameters from 228 different types of pharmaceuticals.

With regard to post market surveillance (PMS) tests, 267 (87%) out of 307 medicine samples tested for physico-chemical met the standard. Furthermore, microbiological test on 45 medicines samples and quality test on 146 samples of sanitizer products were conducted and all of them have met the standard. On the other hand, out of 116 condom samples tested, 111 (96%) complied with the standard.

In the fiscal year, 29.2 billion ETB worth of medicine, 9.3 billion ETB worth of medical device and 770.1 million ETB worth of medicine raw materials were given import permits after checking their quality and safety. In addition, entrance permits has given to 2.5 million ETB worth of cosmetics products and 2.5 million ETB worth of raw materials for cosmetics products.

In the reporting period, in collaboration with customs offices, regional health regulatory offices and law enforcement bodies, several rounds of illegal medicine circulation survey were conducted in the 10 regions and two cities administrations. These operations resulted in capturing 18 illegal operators (nine illegal medicines distributers, four illegal cosmetics vendors, two Chinese mask products distributors, one another illegal masks distributor, a hand sanitizer producer and a distributer). Therefore, in accordance to the regulation necessary administrative and legal measures was taken.

With regard to clinical trial (CT) regulation, there were 17 CT's authorizations made for the following: Pregart, DOTS, 2 AVAREEF, 3 TM for COVID-19, FLAME, LAMPREG –AHRI-malaria, anti-malaria/TES trial, EFFORT, ALIVE,

traditional medicine (at Debre Birhan University), optimizing place of treatment and antibiotic regimens. Two Fred Hollows anticov, mechanical ventilator, copcov New CT protocols were evaluated and have given required responses.

As part of health products safety regulation necessary inputs were provided and a center for

Pharmaco-vigilance was established in Haromaya University Hospital.

About 6,870 adverse drug reaction reports were collected from different parts of the country, analyzed, and submitted to WHO database. This number is big because the Authority provided good follow-up on the COVID 19 pandemic vaccination activities. Moreover, a COVID 19 pandemic vaccination safety monitoring was conducted through the necessary follow-up and support to all regions, and inspection of pharmaco-vigilance has been done rigorously**.**

As part of strengthening the inspection of narcotic and psychotropic substance, a countrywide performance report on demand and supply information was submitted nine times to International Narcotics Control Board (INCB). In addition anti-drug clubs were established and supported at 10 universities.

Control of tobacco and tobacco products

In the fiscal year, 202 million ETB worth of cigarettes have been imported from abroad. These cigarettes have notification that describes the hazards that smoking cigarettes has on health. On the other hand, 119 million ETB worth of cigarettes that did not fulfill the standard for importing were rejected at port of entry and have been returned back to their country of origin.

In order to control smoking at public places, a total of 15,538 sites were inspected (6,166 more when compared with last year 2012 EFY). Moreover, smoking-free public places were promoted through different Medias and public mobilization activities. To prevent and control illegally imported cigarettes, one round of surveillance and operation was undertaken in five major towns and the necessary actions was taken for illegal operators.

Legal framework preparation and its enforcement

In line with its plan to revise 24 directives this year, EFDA drafted, revised and developed eight directives. These documents were also shared with key stakeholders and their comments are being incorporated. Similarly, three model directives (for health products, for food products and for traditional medicines practitioners) were developed and shared for regional regulatory units for them to customize in their own context.

Improve public ownership

Creating community awareness on health regulation and empowering them to protect their own health from unsafe food and health products has been given a priority this year. Accordingly, educational information about preventive measures of the regulation results were transmitted to the public 626 times through electronic media and printed materials. As a result, it is estimated that 49.5 million people accessed this information. Moreover, 10,772 people have shared their opinions and feedback to EFDA's free-toll – 8482.

COVID-19 related prevention activities

To enhance public awareness about the challenging aspect of COVID-19 pandemic, its vaccination and clinical trial on its traditional medicines, messages in the form of experts interviews were transmitted through different electronics media, free toll of 8482, and through demand-based in person consultations upon demand. Posters on improved and best food safety practices, and COVID -19 masks sewing instruction were developed and disseminated to the public. In the fiscal year, a serious adverse drug reaction investigation and Causality

Assessment was conducted on about 13 cases of COVID-19 vaccination. Moreover, reports on vaccination safety and adverse events were collected from different parts of the country and submitted to WHO's database.

A supportive supervision visit was provided to all regions that received training on adverse event following immunization (AEFI) which has enabled to strengthen the Pharmaco-vigilance inspections across all regions. Discussions on the COVID vaccination safety was held with health practitioners at health facilities. Training to the trainers (TOT) on PCV10 to PCV13 switch vaccine campaign for AEFI was also given to the EPI coordinators.

EFDA has revised the previous directive for CoC to producers of masks, and for market-authorization (MA) of the products to ensure the quality, safety and performance of the products needed to prevent the spread of COVID-19 virus.

Other Achievements in the fiscal year

- In response to the health service's urgent need of health products, EFDA played its role to ensure availability of drugs, devices and other health products in the market, on time and with the required quality and safety standards by following a new and efficient registration and quality assurance strategies and systems.
- Improved efficiency of the registration system and timeliness of permit of entrance for imported food items particularly for baby and child foods
- EFDA also worked to improve the food quality control laboratory that has now grown its capacity to handle the food related quality testing activities.
- An extensive training and awareness creation program on regulatory processes and legislation was provided to all regulatory bodies, mainly regional regulatory bodies to help them understand & proactively play their role and standardize regulatory functions.
- Though rampant in some regions, illegal products movement and trade, seems to be limited due to close intelligence led surveillance and operation and the law enforcement measures taken based on scientific analysis and operation and in collaboration with multiple stakeholders.

Challenges encountered during regulation

- Low capacity of regional health regulatory bodies, especially gaps in human resource availability and skill, scarcity in budget availability, to align with & collaboratively implement common regulatory activities.
- Scarcity and/or unavailability of laboratory reagents from local market
- High threat of food adulteration, illegal food & sub-standard medicines in the market, irrational medicines uses by the public and consumption of alcoholic and tobacco at restricted public places
- Unrestricted acts of the social media on promoting of alcohol and tobacco uses
- Low public awareness and engagement
- Low collaboration mechanism with different stakeholders on regulation activities
- Gap of knowledge and limitations in capacity to utilize high technology
- Interruption of power especially for laboratories functions/activities
- Threats of COVID-19 pandemic and peace and instability issues in some places

Way forward

- Promote awareness and mobilize the general public, especially the youth, to tackle hazardous food, illegal food trade, food adulteration, sub-standard and illicit health related products, improper uses of medicines, tobacco use on restricted public places etc.
- Improve collaborative efforts with all key stakeholders, incorporate regulation strategies in all public policies and sectors and also alignment of regulation strategies with the HEP
- Strengthen capacity of regional health regulatory bodies with skilled manpower & mix, sufficient budget, necessary logistical services and structural & organizational rearrangements to make the regulation standardized and be a nationwide concern
- Monitoring and banning of alcohol and tobacco advertisement and promotion on social & electronic medias
- Undertake extensive awareness program & training on regulatory standards, policies and systems to all Professionals & other related bodies of regulation.
- Working to assure desirable political commitment to support the regulation's efforts
- Promoting and motivating self-regulation, immediate reporting on defects of food & drug safety issues by volunteers operating in the field

4.1.2. Health and health related institution regulatory functions

In this section the regulation of health institutions, hygiene and environmental health of health-related institutions, development and ensuring the implementation of standards, capacity building activities and support, and public awareness are discussed.

Development and revision of standards

In 2013 EFY, 45 health institution standards have been revised and 24 of them were endorsed by Standard Council. Moreover, 21 hygiene and environmental health standards of health related institutions have been developed and 10 of them were endorsed by Standard Council. In this year, 4 new health institution standards (Medical Plaza, Medical Office Practice, Women Health Clinic, and Implementation Scheme) were developed. These standards are not yet endorsed by the Standard Council yet.

Health and health related institutions Regulation

In 2013 EFY, a total of 33 health institutions and 45 Health related institutions were inspected at the federal level. The findings suggested that most of the health institutions have gaps in implementation of national standards. Feedback was given for each health institution based on their specific inspection findings. In addition, the inspection findings of health facilities were presented to the health institutions in the presence of key stakeholders and higher officials of the Ministry.

COVID-19 response

Regional and city administration health regulatory bodies were supported financially and technically for the implementation of COVID-19 Directive 30/2013. A close follow up and support was provided to regions and city administrations on the implementation of the directive. In general, more than 30,000 health related institutions were regulated.

Challenges

- Shortage of manpower
- Difficulty of conducting inspection operations due to security concerns
- Less willingness of government health institutions to take certificate of competency
- Budget limitation to strengthen COVID-19 NPI activities
- Lack of coordination with law enforcement bodies to enforce COVID-19 NPI on health related institutions

Way forward

- Strengthen relationships, collaboration and partnership with stakeholders
- Design ways to improve the licensing of government health facilities
- Strengthen National COVID-19 NPI regulation on health related institutions
- Enforce endorsed health and health related standards
- Strengthen development and revision of health and health related institutions standards
- Finalize MFR signature domain and initiate and finalize the entry of service domain
- Strengthen coordination with regions and provide technical support to regions
- Request and follow to meet the required manpower
- Initiate / strengthen health and health related institutions self-regulation
- Increase coverage of health and health related institutions inspection

4.1.3. Health Professionals' Competency Assessment and Licensure

During the reporting period, task analysis for Medical Radiology Technology, Dental Medicine, Nursing and Pharmacy cadres were developed/revised. In addition, blueprint for Medical Radiology Technology and Dental Medicine cadres was developed. In the fiscal year, the other accomplished activity was the development of question items for Medicine, Nursing, Health Officer, Anesthesia, Midwifery, Medical Laboratory Technology, Pharmacy, Medical Radiology Technology and Dental Medicine,

In this reporting period, a new directive is developed for Health Professional's registration & Licensing. Licensing/Re-licensing health professionals coming from abroad, issuing letter of good standing and providing document authentication service has been provided. Moreover, Licensure exam was administered in 3 rounds for 31,294 candidates out of which only 12,363 (40%) passed the exam. Feedback on exam result /with domain analysis/ was disseminated for all stakeholders (HEI's, MoSHE, HERQA, Professional Associations). In line with this, remediation guideline was developed to make higher education institutions provide knowledge/skill gap trainings for exam failing candidates.

In addition to the above achievements, integrated human resource information system (iHRIS) software development is being conducted so as to implement e-licensing at federal level and across all regions. Studies have also been conducted to assess licensing practice at regions & exam development/administration process in higher education institutions.

Challenges

- Exam schedule inconveniences due to covid-19 pandemic
- Lack of readiness for the exam among HEI's & candidates
- Inconsistent licensing practices among regions

Way Forward

- Implementing computer based examination
- Implementing e-licensing using HRIS
- Making preparations to start Objective Structured Clinical Examination/OSCE/
- Working with stakeholders to improve the quality of diploma level competency assessment /CoC/
- Working with stakeholders (MoSHE, HERQA & HEI's) to introduce remediation in higher education institutions for exam failing candidates

4.2. Health Infrastructure

Under health infrastructure development, the health sector is increasing access and quality of health services through the rehabilitation of existing health facilities and construction of new facilities. The main tasks of health infrastructure program includes providing adequately equipped, staffed and governed health facilities, customer friendly and standard health facility layout, sustainable facility and equipment maintenance and IT supported health system. The main accomplishment under health infrastructure program in the fiscal years includes; construction, maintenance, renovation and rehabilitation of Health Facilities

Construction of Health Posts

In the fiscal year, the cumulative number of functional health post in the country was 17,699 and additional 391 health posts are under-construction. The majority of health post 232 (53.3%) under construction are from SNNPR region. The detail of health post distribution by region is displayed in the table below:

Table 20. Number of functional and under construction Health Posts by Region, EFY 2013

Regions	Functional	Under construction	Total
Tigray	743	0	743
Afar	343	3	346
Amhara	3565	32	3597
Oromia	7099	27	7126
Somali	1327	86	1413
B/Gumz	424	2	426
SNNPR	3437	232	3669
SIDAMA	550	2	552
Gambella	147	6	153
Harari	28	1	29
Dire Dewa	36	0	36
Addis Ababa	0	0	0
Total	17,699	391	18,090

Construction of Health Centers

The number of functional health center at the end of the year was 3,777. In addition to the functional health centers, 113 new health centers are currently under construction from nine regions and two city administrations.

Table 21. Number of functional and under construction Health Centers by Region, EFY 2013

Regions	Functional	Under construction	Total
Tigray	226	3	229
Afar	97	11	108
Amhara	872	13	885
Oromia	1,411	5	1416
Somali	215	30	245
B/Gumz	60	7	67
SNNPR	608	23	631
SIDAMA	135	8	143
Gambella	28	4	32
Harari	8	1	9
Dire Dewa	15	0	15
Addis Ababa	102	8	110
Total	3,777	113	3,890

Construction of Hospitals

At the end of 2013 EFY, the total number of functional hospitals (specialized, general and primary hospitals) across the country was 367; In addition to the functional hospitals, 67 new hospitals are under construction. The distribution of public hospitals in each region is shown in the table below.

Table 22. Number of functional and under construction Hospitals by Region, 2013 EFY

Regions	Functional	Under construction	Total
Tigray	41	4	45
Afar	7	0	7
Amhara	88	20	108
Oromia	109	15	124
Somali	13	3	16
B/Gumz	6	1	7
SNNPR	62	17	79
SIDAMA	19	3	22
Gambella	5	0	5
Harari	2	0	2
Dire Dewa	2	1	3
Addis Ababa	13	3	16
National	367	67	434

Federal Infrastructure Projects

- Bidding advertised to recruit a consultant to renovate and construct four health facilities: Alert Dermatology and plastic surgery, Amanuel Emeregncy hospital, St Peter diagnostic, and Amanuel staffs dormitory and agreement was signed for the three facilities constructions and the detail design was prepared.
- International bidding advertised for the construction of Amanuel staffs dormitory and preparation finalized to advertise the construction of dermatology and plastic surgery
- The problem encountered with the land ownership to construct Amanuel Emergency hospital was resolved and detail design for the hospital is being prepared. Similarly, St Peter diagnostic design was finalized

Laboratory Infrastructure Projects

- Preparations for the construction of 15 laboratory facilities in eight regions was finalized; the preparations work includes availing land, detail design preparation, detail work specifications, and bidding documents. The construction of these laboratory infrastructures is with the support from the World Bank and received no objections from Word Bank on the design but later the bank requested to prepare foundation design for all laboratory facilities and this make a bit delayed in the process.

Regional Infrastructure Projects

- Supported four project with an estimation cost of 35 Million birr to Amhara region (Boru-Meda Dental clinic center and Alem-Ketema Enat Hospital), Somali region (Gode Maternity and delivery center), and SNNPR (Butejera Emergency medical center)
- Awareness creation workshop given for the regional health bureau and stakeholders on HSTP-II and 2013 health infrastructure strategic directions
- Focal persons were assigned and providing technical support for all regional health bureaus and city admirations
- To fill the gaps with engineers for Sidama and Harare health Bureau, engineering staffs were assigned temporarily from MOH
- Quarterly supportive supervision conducted in Somali, Afar, Gambela Benishangul Gumuz regions

4.3. Gender, Youth and People with Disability Mainstreaming

Ministry of health has been implementing different initiatives on women, children, youth and people with different ability to ensure equitable access to health services, increase their participation and to address their rights and benefits. Some of the major activities performed in the fiscal year include:

- Analysis made on women participation on leadership and decision making role and used for planning purpose,
- Women forum was established to enable female workers gets support from each other
- A study was conducted on work environment convenience for female workers and the findings are being used to improve the gaps,
- Harassment survey on work place was conducted and based on the finding
- Training manual and guideline developed, training given for female directorates to improve their leadership and decision making roll.

To address information needs for people with different abilities (disability), health and health related information is being disseminated with sign language, 900 copies of braille printed and distributed to regions on different topics including cervical cancer, MDR TB and sexual assaults. To ensure equitable access for persons with different abilities (disability) training manual was prepared and basic training on sign language was provided for health care workers. A study audit was conducted on institutions convenience for people with disability, feedback was provided on the study conducted on COVID-19 response access for disabled people.

In order to keep children safe and healthier, childcare centers have important role and in the fiscal year awareness and advocacy was done on the establishment of childcare centers, material support and training provided for nurses and caretakers, guideline developed and orientation provided for federal offices on the opening of childcare centers. Furthermore, in collaboration with Lideta sub city, Ministry of Health is supporting 20 vulnerable children permanently.

Challenges

- Lack of clear structure in the regions to deal gender, youth and people with disability, shortage of budget, lack of expertise, gaps in the professional capacity,

Way forward

- Create clear structures in the regions and institutions, independent budget and qualified professionals has to be assigned.

4.4. Policies and Strategies

According to the world health organization (WHO), an explicit health policy can achieve the vision for the future, it outlines priorities and the expected roles of different groups, and it builds consensus and informs people. In the fiscal year, some of policy and strategies activities accomplished include:

- Developed and disseminated a ten years health sector strategic plan. In addition, the second Health Sector Transformation plan (HSTP II), spanning for the period 2021-2025 was developed and disseminated
- Conducted subsequent consultation on the revised draft health policy document and enriched the document
- Submitted first revised draft health policy document to Ethiopia attorney general director for comment, and MoH received feedback, revised the document and resubmitted for approval. Ethiopia attorney general director reviewed and approved the final revised draft health policy and communicated it to Ministry of health with official letter. Currently, the draft document is already submitted to Council of Ministers and House of People Representative for ratification
- Implementation of HSTP II has started and also prepared cascaded other programs /FMoH agencies strategic/ road maps plan in more detail
- Thirty-eight (38) different programs, including FMoH agencies have finalized their five-year strategic plan or road maps and most programs have already endorsed and some of them are on process to endorse.
- Implementation of the previous health policy was evaluated using performance review of various programs
- Researches on selected major relevant issues have done by Ethiopia public health institutions, AHARI, Universities and other programs area in collaboration with different partners.

4.5. Health reform and good governance

Strong health governance at all levels is necessary to ensure that resources devoted to the health sector ensure adequate access to health care and improved health. When governance is carried out efficiently, effectively, and equitably, responsive and sustainable health services lead to positive health outcomes.

To improve social accountabilities of the health sector, health facilities are being monitored using community scored card (CSC) system. In the fiscal year, three national technical working group meeting were held, CSC training provided for 236 health care workers and management staffs, and CSC implementation was started in 102 new Woredas. At the end of 2013 EFY, CSC implementation has reached to 707 Woredas. Based on the CIC indicator 69.5% of health center rated as clean and safe, and in 65.2% health centers have basic infrastructure (electricity, water, rooms etc) services, 65.8% of facilities indicated the availability of medicines, diagnostic services and medical supplies.

In the fiscal year, good governance plan was developed jointly with RHBs, agencies, federal hospitals and MOH directorates, and agreed the implementation of the identified gaps by the respective agencies and directorates. Semiannual and annual performance review meeting was held, 95 good governance issues were identified from the ministry, agencies, regions and federal hospitals and 54 (57%) issues were resolved and 8 are on the process. Good Governance Index (GGI) assessment was conducted in 27 hospitals and the analysis was shared with management body. A training on good governance index was given for 30 hospital reform and good governance directorate director experts.

CHAPTER

HUMAN RESOURCE FOR HEALTH

Human Resource Development and Management

The health sector has invested in human resource development and management in parallel to the intensive expansion of infrastructure for the last two decades that has resulted in improved health service coverages with better number and distribution of health workforce. Subsequently, HSTP II was developed and being implemented since a year back to further improve the health workforce through proper human resource planning, development and management (training, recruitment, deployment, performance management and motivation) that will result in the presence of motivated, competent, compassionate and committed health professionals in adequate number and skill mix.

As 2013 EFY is the first year of the second HSTP, several activities that emanated from this health sector strategic plan have been implemented in 2013 EC to put a foundation for the improvement of the health workforce in the strategic period. Human Resource development and administration is the key area that has been given due attention where the efforts of various stakeholders have been pooled, and different strategies have been developed and implemented to create conducive environment for the upcoming interventions that will result in improved access to health workforce, health service coverage, equity and quality. The major activities that have been implemented in this budget year are discussed below based on the following subtitles: Capacity Building, human resource information system (HRIS), Deployment, motivation and retention, technical assistance management and Distribution of health workforce.

5.1. Capacity building/Training

MOH has used different strategies and interventions to equip the health sector with adequate and well-trained health workforce that is equitably distributed, motivated, and enabled to provide quality health service with passion. Among the interventions are coordinating pre-service and in-service training in collaboration with key stakeholders which have been implemented through Motivated, Competent and Compassionate (MCC) workforce and continuous professional development programs. MCC workforce program is among the priority areas of HSTP II that has been given due attention and has been initiated through implementing several interventions. The detail description of MCC workforce performances is indicated under the subtitle of Transformation agendas/priority areas of HSTP II (Chapter 2). Therefore, activities performed in strengthening CPD are described as follow.

Continuing professional development program (CPD)

At federal level, efforts have been exerted to strengthen the implementation of CPD with selected professionals, and institutionalize the program through intensive advocacy and resources support to the key implementers. The following are among the key activities performed in these regards. These are:

- Transferred budget to Regional Health Bureaus and professional associations to strengthen their internal capacity in CPD and to create awareness among health professionals
- Prepared awareness creation messages and broadcasted through radio, and disseminated via social Medias
- Conducted advocacy on continuous professional development for Health Professionals and relevant stakeholders at the Ministry of Health, regional health bureaus and professional associations
- Held consultation forums with Regional Health Bureaus, professional associations, regional regulatory bodies and CPD centers

- Recognized 81 continuous professional Development program centers who met the training requirements for national CPD
- Developed Digital platform (web-based) for training modules, installed and made available on the Ministry of Health's CPD Server/database for use
- Facilitated the initiation of the training of thirty trainees in the second round of the Leadership Incubation Program
- Provided senior leadership skills training to State Ministries, Directors, and agencies
- Handed over a series of professional development activities to regional Health Bureaus and regional regulatory bodies, and enabled them to link Continuous Professional Development (CPD) with renewal of professional license in seven professional fields starting from March 2021
- Completed the development of web-based service (digital platform) for CDP and started preparation to start deployment. The development of iHRIS database for CPD was also completed and ready for deployment.

To strengthen the capacity of medical and health science practical areas, nine clinical practical areas are selected (Bishoftu, Dilchora, Shenengibe, Arbaminch, Adare, Debre Markos, Wollo, Minilik and Gondar Health center) and supported to create suitable environment for medical and health science training. Accordingly, to strength organizational collaboration, the selected institutions are supported to develop Memorandum of understanding (MoU), assigned clinical coordinators, and conducted awareness creation activities for the professionals of those institutions.

A clinical guideline for preceptorship has been developed and Preceptor training was provided to more than 100 professionals, which has created a huge potential for the institutions. Training materials for clinical practices were developed and distributed to the selected institutions. Moreover, some Institutions (Dalchora, Adere, Bishoftu, Debre Markos, Dessie and Menelik) organized reading corners for their students where others collected books and in process to arrange reading corners.

Finally, with the aforementioned and other efforts, the number of institutions that provide continuous professional development accreditation has increased from 10 to 32 where the number of institutions that provide continuous professional development training has increased from 8 to 81.

5.2. Human Resource Management Information system (HRIS)

In order to document and update staff information, data of 1185 MOH staff were documented to HRIS, and made accessible for use. Concerning the sector wide health workforce, data on 296,156 (98.4% of the planned figure) are compiled in a way that it shows distribution of the human resources by regions, city administration and agencies suitable for use disaggregated by education levels, professionals and sex. In addition, a taskforce has been established to strengthen the implementation of the National Health workforce account (NHWA) and has started its mission.

Regarding digital system, integrated HRIS is under development by customizing it from an open source eHRIS system. It handles the functionalities HR ADMIN, HR Development, and the HR Licensure services. The features that have been selected for first release include the personnel management, leave management, performance tracking and dashboard feature. On the HRD side, as a part of early release, graduate tracking feature, trainee registration and course update is being developed. To date, the iHRIS development status reached 58%.

To enhance the iHRIS development and implementation, electronic materials that include 2194 Desktop and 150 laptop computers and 150 hard disks were purchased and distributed to regions. Besides pre training awareness creation works was done on iHRIS implementation to the officials of regional health bureaus, universities and federal agencies, training of trainers and end user training was given to 104 trainers and 1259 professionals respectively.

5.3. Deployment

As most of the hiring process of health cadres was decentralized and managed at RHB level, MOH focused on interventions that help to improve job opportunities in health through increasing the number of health workforce of the health sector, and improving employment opportunities for the health professionals outside the health sector. Accordingly, efforts were made both at federal and regional levels to increase the uptake of health workforce, For instance, the number of workforce was increased from 73.3% to 75.5% at federal level, but it is below the target figure (85%) for the year. Though data compilation is not completed, it is expected that several health workers joined the sector through regions. On the other hand, study was conducted to determine workload in the health sector and magnitude of available health professionals in the market. The report will be released soon signifying the findings on workload. Findings from the national health labor-market study revealed that while there has been significant increase in health workforce density over the last ten years, there is still a significant need-based shortage of health workforce to deliver essential health service package.

A committee consisting of relevant stakeholders has been established to lead and oversee activities that contribute to improve employment opportunities for health professionals outside the health sector and improve access to health workforce. The committee held various consultations and identified options for job opportunities in the health sector that include group and private (Solo), physician plaza, home based care and treatment, mobile and tele health therapy. Considering the gathered information, implementation procedures/steps have been developed and submitted to the Management Council for a decision, to initiate implementation promptly. Job opportunities like home based care and treatment, mobile and tele health therapy are ready to initiate the implementation. The heads of the offices have signed a memorandum of understanding to work with the Job Creation Commission.

In collaboration with the Job Creation Commission, a system has been set up to register unemployed professionals. Subsequently, 10,265 professionals have been registered in various fields. Of these, 2,796 professionals have completed their registration. Training materials have been developed to train prioritized professionals that include health officers, midwifery and nurses. Discussion was also undertaken with Ministry of Foreign Affair considering the common alternatives to widen employment opportunities abroad. Hence, the Ministry of Foreign Affairs is working to establish relations with embassies and consulates in various countries.

During the COVID-19 pandemic, MOH was able to deploy an additional 6,721 health professionals for the prevention and control of the pandemic. These professionals were deployed through digitized methods of registration, screening, recruitment, and deployment mechanisms. In order to deploy these COVID-19 front line workers, a huge resource mobilization was done to effectively motivate and retain them.

In collaboration with the Federal civil service commission and the ministry of finance and regional health bureaus, the Ministry can permanently employ health professionals that have been deployed in the fight against the pandemic in contract basis. This has been considered as a great achievement in prevention and control of the pandemic in one hand and creating enormous job opportunities in the health sector in another way.

5.4. Motivation and retention

MOH has been highly engaged in revising the current health professional incentive directive, which has been in effect since 2005 E.C. Through an extensive consultative process with various relevant stakeholders, an inclusive, cost efficient and health workforce-incentive directive draft has been prepared and will be sent to the councils of ministers for possible endorsement. This will have a great impact on creating motivated, competent and compassionate health workforce and in return creating healthier citizens for a prosperous nation.

As part of the COVID-19 response, MOH has taken major decisions in health workforce motivation and retention mechanisms. Amongst the major milestones achieved regarding Health workforce motivation and retention, mechanisms include: Introduction and implementation of the special risk allowance payment guideline for COVID-19 workers which was endorsed by the prime minister office; Life insurance coverage for health workforce in case of fatality; National recognition week was celebrated for acknowledgement of all stakeholders involved in the response against COVID-19. In addition, MOH has permanently employed health professionals that have been temporarily deployed in the fight against the pandemic. Through the aforementioned motivational mechanisms, it can possibly retain the health workforce and motivate them to fight the pandemic with all due responsibility.

5.5. Management of Technical Assistance

In order to strengthen the health system, MOH has been recruiting and deploying various Technical Assistants (TAs) using financial assistance from development partners in two ways: project based employment and as seconded staff. To effectively utilize such a technical assistance, a national guidelines for technical assistance is developed. Accordingly, a technical assistance coordination unit is established. Since its establishment, the unit has been organizing the TA data, follow up of TA performance appraisal, contact renewals and hiring new TAs. There has also been a transition plan to minimize the number of TAs by replacing them with permanent staff.

5.6. Distribution of Health workforce

5.6.1. Stock of Health workforce

Human Resources data collected at the end of 2013 EC shows that the total health workforce who are employed in public health facilities is increased from 273,601 in 2012E.C to 325,374 in 2013 EFY. From the total health workforce, 212,185 (65%) are health professionals and the remained 113,189 (35%) are administrative/ supportive staff.

Regarding the health professional categories, the top three health professionals in public health facilities are Nurses (69,824), Health Extension workers (42,630) and Midwifery (20,355). There is no updated data on number of health workforce working in private health facilities for the year 2013E.C, but it is estimated to be about 71,500 personnel in 2012E.C.

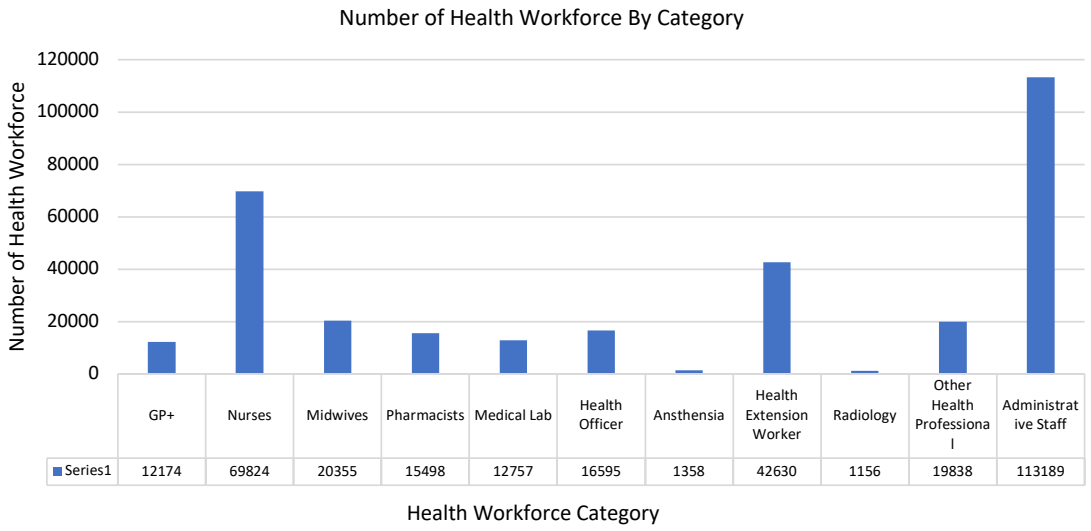


Figure 43. Summary of National Health Workforce in 2013EFY (2020/21)

5.6.2. Distribution of Health workforce by Region

Distribution of health workforce is among the basic factors affecting health service provision (service coverage, quality and equity). Hence, disparity in staff distribution is used as equity indicator, to measure differences among regions in staff distribution, and to indicate the gaps to be narrowed.

In 2013E.C, the highest Health workforce to population ratio is observed in Harari and B/Gumuz regional state followed by Addis Ababa City Administrations and Gambela regional state, where lowest health workforce to population is seen in Oromia and Somali regional States followed by Amhara regional state from bottom to up.

Table 23. Health Workforce Distribution by Region, 2013 EFY

S.No	Regions	Gp+ Specialist+ Sub-specialist+ Dental Surgon	Nurses	Midiwife	Health Officers	Medical Lab	Pharmacist	HEW	Ansthensia	Radiography	Other Health Professionals	Admin and Supportive staff	Total
1	Tigray	913	6355	1504	1044	696	966	3074	99	112	736	7597	23664
2	Afar	73	1090	264	241	194	225	752	6	21	339	3975	7262
3	Amhra	2516	12288	5323	3422	2883	3952	8496	294	317	3628	20941	65005
4	Oromia	2535	18900	4700	3338	2876	4059	15918	267	260	4432	28484	86927
5	Somali	671	3268	1839	693	678	790	2197	26	42	1029	3580	14547
6	B/Gumuz	102	1629	580	219	244	406	1028	14	8	48	2731	7277
7	SNNP	1687	11206	3692	3569	2469	2087	7354	209	86	2614	19852	55621
8	Sidama	305	4127	661	909	712	608	1672	30	38	538	5927	15613
9	Gambela	70	1153	59	144	144	41	688	4	3	151	204	2667
10	Harari	77	417	111	55	90	99	134	13	25	129	594	1752
11	Dire Dawa	139	462	109	70	80	99	261	19	10	125	696	2093
12	Addis Ababa	3086	8929	1513	2891	1691	2166	1056	377	234	1059	18608	42946
NATIONAL		**12174**	**69824**	**20355**	**16595**	**12757**	**15498**	**42630**	**1358**	**1156**	**19838**	**113189**	**325374**

5.6.3. Health professionals to population Ratio

According to World Health Organization, the Health professional density level is a key criterion to measure health sector staffing. It identified as the SDG index threshold" of 4.45 doctors, nurses and midwives per 1000 population as an indicative minimum density representing the need for health workers (*Health Workforce Requirement for UHC & SDG, 2016, WHO)*, where HSTP II sets target of 2.3 per 1000 population. The health professional density for Ethiopia is 1.16 doctors, Health Officers, nurses and midwives per 1000 population at the end of 2013EC, which needs more efforts to attain the HSTP II target.

Regarding health professionals to population ratio, the national physicians to population ratio is 1: 8,448 (which is 1.18 physicians per 10,000 population). The nurse to population ratio at national level is 1: 1,473 (which is 6.79 nurses per 10,000 population). Health professionals to population ratio varies among the regions where the ratio of medical doctors (GP+ Specialist) per 10,000 populations is about 8.18 in Harari whereas it is 0.37 in Afar regional state. This means one medical doctors (GP+ Specialist) is expected to serve 27, 256 population in Afar Region, where one medical doctor (GP+ Specialist) is expected to serve 1,222 peoples in Addis Ababa. Similarly, nurse to population ratio per 10,000 populations are high in Addis Ababa, Gambella, Harari, and B/Gumuz regional states with ratio of 23.7, 23.1, 15.4 and 13.9 respectively, where the lowest Nurse to population ratio is seen in Oromia (4.8) and Somali (5.1) and Amhara (5.5).

Nationally, one medical doctor (GP plus specialist), Nurse, Midwife and Health Officer is serving a total of **8448; 1473; 5053 and 6198** population respectively. For detail, information refer the table below.

Table 24. Selected Health Professionals to Population Ratio by Region, September 2013 EFY

S.No	Re-gions	Estimated Population	Gp+ Specialist+-Sub-specialist+ Dental Surgon		Nurse		Midiwife		HO		Medical Lab		Pharmacist	
			Num.	1GP+:Pop	Number	1Nurse:Pop	Num.	1Mid:Pop	Num.	1HO:Pop	Num.	1Med.L:Pop	Num.	1Parm:Pop
1	Tigray	5,640,507	913	6,178	6355	888	1504	3,750	1044	5,403	696	8,104	966	5,839
2	Afar	1,989,674	73	27,256	1090	1,825	264	7,537	241	8,256	194	10,256	225	8,843
3	Amhra	22,536,586	2516	8,957	12288	1,834	5323	4,234	3422	6,586	2883	7,817	3952	5,703
4	Oromia	39,074,864	2535	15,414	18900	2,067	4700	8,314	3338	11,706	2876	13,587	4059	9,627
5	Somali	6,354,731	671	9,471	3268	1,945	1839	3,456	693	9,170	678	9,373	790	8,044
6	B/Gu-muz	1,173,123	102	11,501	1629	720	580	2,023	219	5,357	244	4,808	406	2,889
7	SNNP	16,552,023	1687	9,812	11206	1,477	3692	4,483	3569	4,638	2469	6,704	2087	7,931
8	Sidama	4,469,029	305	14,653	4127	1,083	661	6,761	909	4,916	712	6,277	608	7,350
9	Gam-bela	498,671	70	7,124	1153	432	59	8,452	144	3,463	144	3,463	41	12,163
10	Harari	270,031	77	3,507	417	648	111	2,433	55	4,910	90	3,000	99	2,728
11	Dire Dawa	521,000	139	3,748	462	1,128	109	4,780	70	7,443	80	6,513	99	5,263
12	Addis Ababa	3,770,554	3086	1,222	8929	422	1513	2,492	2891	1,304	1691	2,230	2166	1,741
National		**102,850,793**	**12,174**	**8,448**	**69,824**	**1,473**	**20,355**	**5,053**	**16,595**	**6,198**	**12,757**	**8,062**	**15,498**	**6,636**

Other Administrative issues

Several administrative issues were addressed in line with the basics of good governance. Some of the activities related with these issues are salary of the specialists in training, performance-appraisal completion techniques and Job Evaluation and Grading (JEG) issues.

Regarding JEG, up on the revision of the previous two years professional career development that was changed to three years based on new JEG, a guide for health professionals was developed in consultation with regions, professional associations, agencies, health professionals, and Civil Service. It was approved and in use since January 1, 2013 EC. On the other hand, there are professions that were previously evaluated and graded but currently under re-evaluation due to complaints (Nurse, midwifery, Health Informatics, HIT, Health care service managers, Biomedical (diploma & degree)).

Challenges

- Lengthy purchasing process
- Delay implementation of the new course catalogue by Ministry of Science and Higher Education
- Failure to perform National Specialty Test (examination) and placement on time
- Delay in establishing a team in Tigray and Afar regions to manage CPD
- Delay in submission of health workforce data from regions and other concerned bodies
- Delay in Infrastructure development for digital learning modalities of CPD
- Delay in iHRIS development

CHAPTER

HEALTH INFORMATION SYSTEM

CHAPTER 6: HEALTH INFORMATION SYSTEM

6.1. Evidence based decision-making

Enhancing Informed Decision-Making and Innovation is among HSTP II strategic direction, which focused on generation of quality evidence, research, and innovations, building a culture of evidence-based decision-making, and developing and using technology (new and/or improved tools). It also promotes use of data from routine and non-routine data sources, including new research supported with appropriate information communication technology (ICT), and using an established HIS governance framework. This section describes major achievements in 2013 EFY.

Health sector planning

The HSTP II strategic document, which was initiated in 2012 EFY was further refined and translated to Amharic language and made ready for printing and distribution. Orientation was given to MoH staff during the whole staff meeting and to stakeholders during 2012 EFY health-sector review meeting. Furthermore, the ministry's higher officials have highlighted the major objective of the plan to general public using virtual meeting platform during which a total of 120 individuals have attended. In line with HSTP II, about 40 sub-strategies were developed by MoH directorate and agency.

The current HSTP II was developed using the strategic planning and management framework which is somehow different from the balanced score card approach which the ministry has been using since HSDP IV period. To align health sector woreda based planning process with the HSTP II framework the existing planning guide was modified based on the direction given from plan and development commission. Accordingly, the 2013 compressive annual woreda based plan was prepared using both routine and non-routine data source for establishing the baseline and considering HSTP II target for annual target setting. The revised 2014 planning process manual was also shared with region and 65 staff from RHBs and Agencies' plan, monitoring and evaluation directorate was given orientation on the core plan. A total of 48, 728, 645 ETB was transferred for regions to support them in preparation of plan.

Ensuring health in all policy is one of the focus area of HSTP II to enhance synergy among different government sectors. In 2013 EFY, the MoH have reviewed the policy documents of 12 sectors to assess whether health issue is considered or not. Of the 12 sectors assessed 9 (75%) of them have clearly indicated health either in their respective policy or strategic plan document.

Improving Data Recording and Availability

Routine health management information system (HMIS) is the main source of data for the health sector. Since the Ethiopian HMIS was redesigned in 2007/2008 under overarching principles of standardization, simplification, and integration, it went through two revisions in 2014 and 2017. The revision process is generally expected to happen every three to five years to align with major programmatic developments, new strategic plans, and initiatives. In order to respond to the additional monitoring and evaluation (M&E) requirements of HSTP II, .the existing health HMIS indicators and source documents were reviewed in iterative and participatory approach. The existing 131 HMIS indicators was increased to 169 and a total of 18 new register and 7 new tally sheet was introduced making the total number of register and tally sheet 59 and 23 respectively. The remaining revision process is expected to be finalized by the end of 2014 EFY first quarter.

Recording and reporting quality data on causes of morbidity and mortality is a critical component of the routine health information system. Observations during regular data analysis and use, supervisions and a rapid assessment in selected facilities of Addis Ababa showed that the quality of data was found to be unacceptably poor which call for systematic assessment. NCoD assessment was conducted on 51 HFs and two directorates

in seven selected regions and two city administrations with a general objective of determining NCoD implementation status and major gaps to inform NCoD revision process. The major findings of the assessment were: Nearly 40% of service units of a HF do not use NCoD to prepare the monthly disease report; Availability of existing NCoD resources such as OPD/IPD registers, tally sheets, NCoD booklets, and access to National Health Data Dictionary (NHDD) pocket mobile application was inadequate; health workers low competency on using NCoD; missing diagnosis, erroneous use of parenthesis, redundant list of diagnosis and inconsistent NCoD ID/ code.

Civil registration and vital statistic is among the source of data for health sector. In this reporting fiscal year the MoH in collaboration with vital events registration agency have conducted national level assessment on vital events registration and identified major bottlenecks. To address the existing gaps and challenges the five years strategic plan was developed and community level birth and death notification TOT was given to a tota1 of 121 participants from all region except Tigray and Somali to enhance community level birth and death notification. In addition, verbal autopsy manual was drafted which will be finalized in the coming 2014 Ethiopian fiscal year.

CHIS implementation

AS part of continued effort to strengthen implementation of agrarian CHIS cascaded training was given to a total number of xxxx HEWs (92% of available HEWs). At regional level Amhara, SNNP, Oromia, Harari Dire Dawa and sidama have completed cascaded training while Benishangul have reached 37% training coverage. The revised format was printed and distributed to 54% of health post with very wide regional variation: Dire Dawa and Harari (100%), Oromia (95%), Sidama 91 %(only 3 of the format out of 7), Amhara (60%), SNNP (42%) and Benishangul Gumuz only 9%. Currently the regions are on the printing process to fulfil the remaining CHIS format using the budget transferred to them by MoH. Out of the total required 39,308 CHIS implementation manual 2,377 were printed and distributed to region while the remaining 36,932 are on printing process.

A total of 15 towns have been selected for the implementation of urban CHIS and implementation start up activities were also undertaken during HSTP I period. In 2013 EFY 103,847 community folders were printed and 95,847 (92.3%) were distributed for all planned town except that of Tigray region for known security reason. Except Benishangul Gumuz and Gambella region the rest of them have cascaded urban CHIS training and printed the required format. About 50% of kebeles in 15 urban CHIS implementation town have started reporting while 40% of them have categorized households based on demographic characteristic, disease condition and income. Categorization helps urban family health team in providing targeted follow up and home care support. Furthermore, 904 copy of urban CHIS implementation manual were distributed to region.

Pastoralist CHIS manual was revised and its final version was also translated to local language (Amharic, Oromiffa, Somali language…). Printing of the revised pastoralist CHIS registers could not be finalized due to lengthy printing process.

Transforming culture of data use practice

Performance monitoring team (PMT) remains one of the main platform for using data for action at all levels of the health system. In these forums, the PMTs analyze performance data, detect gaps, identify root causes for observed gaps, and develop actions to remedy them. To strength MoH level PMT TOR was prepared along with calendar to further standardize the process.

Periodic feedback on data quality focused on completeness, timeliness, outlier and consistency of HMIS data was among accomplished activity in 2013 EFY. A total of three rounds of feedback was given to each region except Tigray. The representative service and disease monthly report completeness at national level was 93% and 90% respectively while timeliness of the two monthly reports type was 68% and 70% respectively. There are wide regional variation in both service and disease report completeness and timeliness as depicted in below figure.

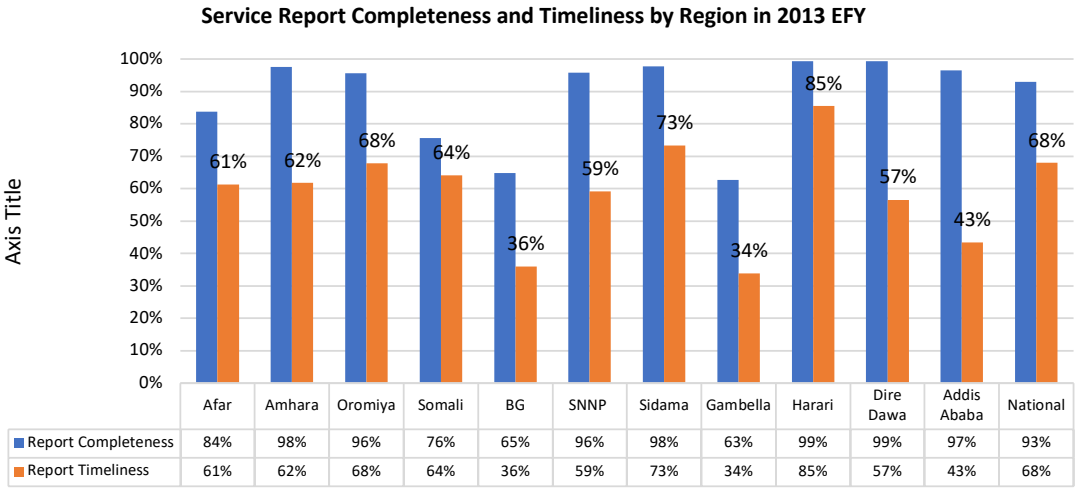


Figure 44. Service Reporting completeness and timeliness, 2013 EFY

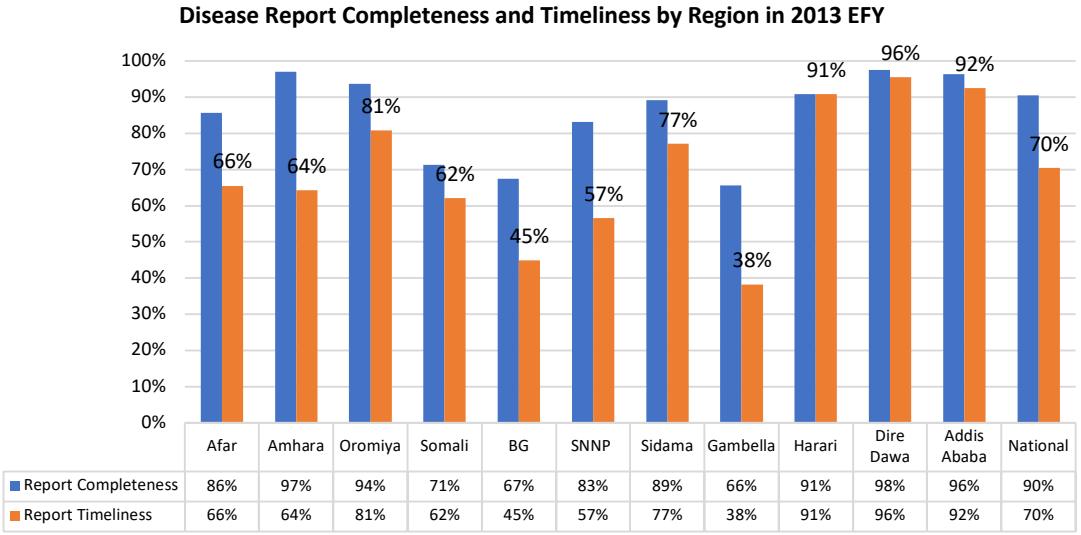


Figure 45. Disease Reporting completeness and timeliness, 2013 EFY

In an effort to increase health managers and policy makers' demand and use of routinely reported data through DHIS2, MoH has sustained monthly and quarterly data analytics which was initiated during the 2012 EFY to monitor progress of KPIs related to maternal and child health, quality of health service, communicable and non-communicable diseases disaggregated by region. In 2013 First Quarter Data Analytic Report, Six-Month Data Analytic Report, Nine-Month Data Analytic Report and Five monthly analytic reports for the months of Tikimt, Tir, Yekatit, Miazia and Ginbot were produced and shared with MoH senior management and all regions. Integrated data quality data use and DHIS2 training was provided to enhance the capacity of health worker at all levels on DHIS2 utilization and data analysis for evidence generation from routinely collected data. More than 70 million ETB was transferred to region to cascade the training.

Integrated supportive supervision (ISS) was conducted with the overall objective of monitoring the program performance against HSTP II and identify performance gaps and challenges related with skill and supplies to enable informed decision making. Important parameters of data quality and data use, including indicators for verification, were included in the HIS section of the ISS checklist.

The ISS covered all regions except Tigray, 11 zones, 25 woredas, 15 hospitals, 57 health centers, 96 health post, and 125 households. According to the findings, most of the data use and data quality parameters showed improvement. To mention some, 61% of the sites use an updated DHIS2 dashboard, 88% of health facilities (HFs) have functioning PMTs, and 89.5% of the them conduct reporting consistency checks using LQAS. Regarding the verification factor of recounted to reported values for skilled birth attendant indicator (N=73), Penta3 (N=169) and TB detection (N=73) indicators, 92%, 78%, and 85% of the facilities, respectively, have a verification factor between 0.9 - 1.1. The average (national level) verification factor for the three indicators were 1, 0.96, and 0.97 respectively which indicates that verification factors for those indicators fall within the acceptable range. The comprehensive ISS report was prepared and major finding was presented for MoH Senior Management team.

The 22nd annual health sector review meeting was conducted in November 2020 with few people participation in person considering COVID-19 situation. The events was live streamed which create an opportunity for other stakeholders to attend the events virtually. During this event the HSTP II and 2013 core plan were presented and discussed. The information product such as 2013 annual performance report, health and health related indicators report and special bulletin was also shared with the participants. Additionally a number of program specific review meeting has been conducted.

IR Model woreda Creation

In this reporting period, MoH has continued working with six universities (Addis Ababa University, Haramaya University, Hawassa University, Jimma University, Mekelle University, and University of Gondar) in implementing capacity building and mentorship program (CBMP) in a total of 225 sites (38 WoHOs, 181 HCs, and 36 hospitals) of 36 woreda on implementation of IR model woreda creation approach. Remarkable progress was achieved in terms of IR measurement tool parameter from the baseline. The proportion of model, candidate and emerging sites was 1.4%, 20.7% and 77.9% respectively during baseline assessment on June 2018. The assessment result of June 2021 shows that 62% of the sites are model and candidate constitute about 36%. A total of 8 woeda (2 University of Gonder (UoG) supported, 3 Hawasa University (HU) supported and 3 Jimma University (JU) supported) were reported reaching model status through self-assessment. Upon versification by MoH team four of them (2 JU supported and 2 HU supported) were verified reaching model status.

Likewise encouraging IR progress was also reported from 8 IR learning woreda and 28 high case load IR targeted hospital. The proportion of model health facilities in this woreda is increased to 56% from 0% during baseline and proportion of emerging facilities have decreased to 7% from 59% of baseline. Out of 28 hospitals the latest IR assessment result was reported from 23 of them which shows that all of them have reached high level candidate status which can be improved to model status with little efforts. Overall in 2013 MoH have scaled up IR model woreda creation to a total of 208 woreda in partnership with regional health bureau and HIS implementing partner.

The RHBs and CBMP implementing University have recommended revision of IR assessment measurement tool to further standardize it. To this end, the assessment tool for WoHos, Health center and Hospital were revised using input from field level feedback and made it ready for implementation in 2014 EFY.

HIS governance

HIS governance is considered as a foundation for IR agenda implementation. At national level two HIS steering committee meeting chaired my MoH higher official was conducted to monitor the overall progress of IR agenda implementation. The committee gave direction to map partner working on HIS, finalization of different HIS governance documents and proposed revision of the existing HIS governance framework.

Accordingly the HIS governance framework was revised and 7 out of 12 region have customized the HIS framework to their regional context. Regarding governance documents stage of development during the year, national HIS governance framework and MFR governance protocol are finalized and endorsed. Likewise, the final draft of 10 years digital health blue print, five year national HIS strategic plan (2020/21-2024/25) and data access and sharing guideline were developed.

Operational and Basic Researches

CBMP has positively contributed in strengthening relationship between academics and actual implementation practice. Evidence generation is among the area MoH has been working with CBMP Universities. Currently 12 operational research is been undertake by those University in collaboration with MoH and RHB. All of the 12 implementation researches received IRB approval and eight teams started conducting their research. In four of the researches, baseline assessment is completed and an implementation strategy was introduced. In six of the researches, baseline data analysis was completed and the implementation strategy is revised and ready for implementation.

EPHI and AHRI are mandated with conducting basic and operational research to enhance evidence based policy and strategy formulation. In 2013 EPHI had published a total of 37 research articles on peer reviewed journal. A total of 45 study on COVID-19 was initiated out of which four are completed. The finding was used to enhance evidence informed COVID-19 epidemic control and response measure. A unique clinical trial with the objective of testing care for critically ill and moderately ill COVID-19 patient has been undertaken by EPHI.

Challenges

- Lengthy HMIS format printing process
- Shortage of budget to implement HIS related initiatives
- Inability to get IR self-assessment result timely
- The health workers attitude toward data capturing and using it before reporting did not reach the desired level
- Low reporting rate from private health facilities except hospital

Way forward

- Strengthen coordination of the HIS activities of RHBs, CBMP Universities and HIS partners on monitoring the progress of IR agenda
- Finalize revision process of HMIS indicators, data recording and reporting format as well as NCoD and ensure their consistent implementation across region
- Finalize and endorse the HIS governance documents such as digitization blue print HIS strategic plan etc and formally communicate with stakeholders
- Improve HMIS implementation at private health facilities

6.2. Use of Technology and Innovations/Digital health

The Digital Health Ecosystem Blueprint for Ethiopia

Cognizant of the inevitable digital revolution that has already started to happen in many countries over several fields, the Ethiopian government has set an ambitious agenda of envisioning a “Digital Transformation for Ethiopia’s Inclusive Prosperity by 2025”. In light of this umbrella initiative and based on global digital innovation leaders’ assessment that the health sector would be the most likely sector to highly benefit from the digital revolution, the Ministry of Health (MOH) of Ethiopia decided to proactively embrace digital solutions and services

to catch up with the booming digital era. One significant measure taken in this regard is the preparation and endorsement of the Digital Health Ecosystem Blueprint for Ethiopia (DHBp), the principal document – that is meant to guide all actors in the health sector. The MOH has started to share experiences on this game-changer decision, the inclusive approaches followed to come up with this massive mother document, "the early bird" opportunities the health sector has unlocked, and the aspirations of the health sector for the coming decade regarding digital health.

The EHR Standard Development

For long, the MOH was challenged to govern the demands of multiple vendors' EMR/EHR systems. The implementing parties, facilities and stakeholders also didn't have reference for their EMR/EHR solutions selection. This for long left MOH and its partners with ineffective EMR solutions that failed to respond to the dynamic needs of the Ethiopia's health sector. Cognizant of this, MOH with other key digital health stakeholders has developed and endorsed a comprehensive national Electronic Health Record system (EHR) Standards after a series of consultations and workshops. This standard will govern and assist all stakeholders in selecting, developing/customizing and implementing individual patient health recording (public, private, other government & non-government health facilities) systems in Ethiopia.

The HIS Maturity Assessment

Driven by the IR Agenda of the HSTP, the MoH is committed to install a strong digital health system at national and sub-national levels. While a lot has happened over the last few years regarding the implementation of different initiatives to strengthen HIS in the health system, the level of maturity of those systems has yet to be measured from different information systems perspectives. Therefore, during the reporting period, MoH conducted a national HIS Maturity Assessment to bridge the information gap, measuring the overarching HIS maturity level based on the major domains and subdomains of the system.

This assessment was conducted with strong engagement of relevant stakeholders (MoH directorates, agencies, universities, and strategic digital health partners) in two phases. First, a current status assessment and goal setting meeting followed by the write-up of the future state and improvement roadmap setting workshop. The current 2021 overarching HIS maturity level was measured based on the HIS Stages of Continuous Improvement (SOCI). The goals and the roadmap for high-impact interventions were set for each subcomponent up to 2024. In general, the workforce and data quality and use domains scored higher than the other domains, scoring between 2.99 -3.27 (out of 5) and seem to be on the right track. However, the leadership and governance, ICT infrastructure, and standards and interoperability scored the lowest, between 2.29 – 2.47 (out of 5), and were identified as areas that need more concerted investment moving forward.

Ethiopia Digital Health Projects Inventory System

In the reporting period, MoH finalized the development and launching of the Ethiopian Digital Health Projects Inventory System and its governance and operational documents to guide all stakeholders on the operationalization of the inventory system. The inventory system will serve as an epicenter to conduct current digital health landscape analysis, assess what activities have been done thus far and used as a clearing house for the standards followed in a certain application. The registration and approval criteria are also documented and communicated to all relevant stakeholders. Training manuals and end-user guides have been prepared and shared with all relevant stakeholders, and the wider use of and compliance to the system will be ensured in the years to come. Stakeholders have already started to use the application to register, certify and update their systems.

Master Facility registry (MFR) Improvement

This year, the MFR technical working group was revitalized with additional roles in the current reporting period. This TWG conducted series of meetings to review the implementation status of the master facility registry and recommend the way forward. MOH has closely worked with strategic partners on MFR project coordination, implementation, identification of challenges, and documentation and amendment of software requirements (both functional and nonfunctional). Driven by careful investigation of the existing system (Resource-Map), MOH has improved the existing MFR by changing its backend in the bid to enhance data exchange and interoperability with different digital health systems. After successive consultations, the technical team agreed to follow HAPI FHIR-based implementation as a backend standard to represent health facilities and services, and IHE-mCSD standards for facility data exchange and interoperability. Accordingly, an improved MFR was developed, and system bugs were fixed. Currently rigorous user acceptance testing is underway to ensure that the improved MFR is interoperable with different HIS.

In the reporting year, technical and financial support was provided to regional and city administration health regulatory bodies to register health facilities on the MFR. Through close monitoring and follow up, so far 95% of health facilities signature domain has been registered on the system. In addition, in order to address the lack geospatial information on the MFR database, MOH with its key partners [Ministry of Information Technology, Geospatial Information Institute & Central Statistical Agency] worked to reconcile facility data from multiple sources and to create a harmonized single list of health facilities with geospatial data elements. Considering the large number of health facilities in the country, to make the facility matching exercise manageable, public facilities were prioritized in the first phase, followed by private and non-government owned ones in the second phase. Currently, more than 80% of the facility geospatial data has been reconciled. MOH is still working with the concerned stakeholders to get all geospatial information of the facilities.

Enhancing the Use of the Digital Health Innovation and Learning Center (DHILC)

The MOH has established a national Digital Health Innovation and Learning Center (DHILC) at St. Peter's Comprehensive Hospital to create collaborative problem solving, innovation, experimenting, and learning space for different digital health systems. The Center has dedicated rooms for the digital health innovation, digital health applications development and testing, capacity building, resource/knowledge management, and client support (Call Center).

The Center is functioning in partnership with the Hospital and implementing partners to lead the realization of innovation in data-driven health care by building and implementing interoperable HIS that are owned and led by the government. It is currently serving as a resource for the MOH, hospital staff, and external partners and offers accredited, advanced-level training. The DHILC immediately features a software development and testing environment for different systems (example, eCHIS, iHRIS, EHR) and will serve as a clearinghouse for any new digital health tools planned to be implemented in the health system. Furthermore, the DHILC is a space where practitioners can seek and receive technical and professional support to help overcome any health system implementation challenges. Based on the experiences of other countries, the Center is expected to solve around 85% of minor health information system related challenges encountered by users.

Documentation of interoperability and messaging standard

The Ethiopian eHealth architecture envisions a holistic and harmonized exchange of data between and among the participating components and HIS. To realize this feature MoH prepared the Interoperability and Messaging Standards document in order to stipulate, compare, and adopt the globally known interoperability and messaging standards to the Ethiopian eHealth context. In this process, a comparison matrix to compare the use cases with similar global use cases were prepared and necessary messaging and interoperability use cases were identified. Accordingly, the global Health Information Exchange (HIE) and underlined standards to support the data exchange and interoperability implementation of the use cases.

When finalized and endorsed by the MoH, this document will give clear direction on how to take the next step towards eliciting interoperability and data exchange use cases within globally known and nationally endorsed frameworks and standards. In addition, it supports in ensuring the implementation of the vision of the DHBp and achieving the future state in which all different components and applications of the eHA could exchange data seamlessly and securely.

eCHIS/DHIS2 data exchange pilot testing

The Ethiopian eHealth Architecture (eHA) provides an architectural solution to enable interoperability and data exchange between point of service applications (e.g. eCHIS) and HMIS (e.g. DHIS2) through an interoperability layer which is based on OpenHIM. The eCHIS/DHIS2 interoperability solution helps to automate the process of data exchange between the two systems and make the work of HEWs to be directly and automatically synced. This capability is expected to enhance the process of data collection and improve accuracy and timeliness of HP data. To enable data exchange between these systems, the mediator service was developed as a component of the eHA interoperability layer that utilized capabilities of eHA shared services (i.e. terminology management service [TMS] and Master Facility Registry [FR]). The mediator used eCHIS's MNCH module data elements for the data exchange, as the other modules are not fully matured.

Having achieved a promising eCHIS/DHIS2 data exchange in the testing environment, MOH has identified piloting sites for the actual data exchange from health facilities. Accordingly, two woredas (Alelitu and Walmera) from Oromia region and one woreda (Dangla Zuria) from Amhara region were selected for this purpose. Currently the MoH and partner team are working with the woredas and respective facilities, and have started the piloting phase. In this process, the HEWs and supervising health centers in the woredas will be closely monitored for their consistent use of the eCHIS tool for the available modules, and the MOH team will follow up for an automatic data exchange between eCHIS and DHIS2 systems. The full-fledged eCHIS/DHIS2 data exchange will be implemented in the production environment based on the lessons and areas of improvements identified from the pilot test.

The eCHIS Implementation

Different programmatic modules of the eCHIS have been developed. The programmatic modules are organized in to five releases for easier testing and rollout. The Release-1 of the eCHIS mobile application suite which consists of the digital family folder, maternal health, family planning and immunizations module is already developed and implemented in 6,320 agrarian health posts across seven regions (Amhara – 1,172, Oromia – 2966, SNNP – 1,739, Sidama – 268, Harari 24, Diredawa 21, Tigray – 130). Benshangul Gumuz region is expected to start the implementation in one woreda soon, with training already provided. To bootstrap the implementation HEWs have focused on household registration. To that end, more than 2.8 million households and more than 12 million household members have been registered. Though the implementation was a success in terms of household profiling, it lacks on usage of actual health service delivery modules.

The Release-2, which comprises of Child health, Nutrition/GMP, has been developed and is currently being pilot tested in two woredas. The Release-3 which includes TB and Malaria is also developed and being piloted in 10 woredas. The development of the Release-4 consisting of NTD, and Non-communicable Diseases is completed and pilot testing is planned to start in the second quarter of the EFY. The Logistic Supply and Management module which assists HEWs in managing essential drugs is planned to be developed and piloted in this EFY.

The customization of eCHIS to pastoralist setting is being completed, with pilot testing planned for the second quarter. Scaling up of the agrarian edition to more health posts, increasing the usage of the available service delivery modules, and expansion of eCHIS in pastoralist regions is planned for EFY14.

DHIS2 Implementation

DHIS2 Academies: DHIS2, apart from its use as a standard HMIS tool across all health facilities and administration levels in the Ethiopian Health sector, it has also been extended to other domains including disease tracking and analysis, public health emergency management (PHEM) and COVID-19, KPI tracking, multisector-based nutrition performance management, and other related initiatives. There have been several capacity building activities performed at national, regional, and health facilities levels to enable data capturing, reporting, and analysis using DHIS2. In light of this, MOH conducted two successful DHIS2 academies locally: DHIS2 Analytics Academy and DHIS2 Design and Customization Academy in this reporting period. These trainings were designed to have a trained pool of experts who have the necessary skills and expertise to carry out the needed customization and related tasks in the years to come.

- A successful bilateral agreement (Memorandum of Understanding, MOU) was signed between the MOH & University of Oslo to jointly work on advanced tasks of DHIS2, research and development, demand-driven app development and customization support (like DHIS2 Customization, Apps Development, and Data Use Academies). Joint planning between the two parties has already been initiated. Currently MOH has prioritized the DHIS2 tasks in light of the current MOH's HMIS indicator revision & the envisaged version upgrade of DHIS2 (from the current v2.30 to v2.36, the most stable recent version).

- Ongoing support to DHIS2 functionality which include increasing the HealthNet/VPN coverage, connectivity monitoring, fixing issues and recovering offline versions, managing new and retiring users, handling the dynamic organizational hierarchies (that includes facility creation and upgrades), troubleshooting, and capacity building has been done. In addition to the HIS and HIT staff, the number of program staff using the system continued to increase. The MOH team also supported importing legacy data for the Oromia RHB and migration of 2007–2010EFY eHMIS data to DHIS2 in Amhara. The DHIS2 TWG was revitalized and started reviewing issues that occur at all levels, identifying and prioritizing new requirements, keeping track of data quality issues, and other DHIS2 related tasks.

National HealthNet/VPN:

So far, a total of 3,632 health facilities, agencies and administrative institutions are connected to the National HealthNet VPN through an ADSL Modem, 3G Dongles and Tailored solutions. That means, nearly 78% health institutions had active HealthNet connectivity of the expected 4,618 which have been given online access to the national DHIS2 server, making the number of offline public users as low as 986. Moreover, efforts have been made to connect more than 207 health posts through the Yazmi Satellite System. Further efforts are underway with Ethio-Telecom to increase the number of connected sites and to enhance the bandwidth for the sites. MOH also has deployed a standard connectivity monitoring tool to remotely follow up the National HealthNet connectivity.

6.3. Basic and Operational Researches

As part of Evidence generation Ethiopian Public Health Institute (EPHI) and Armauer Hansen Research Institute (AHRI) have been conducted different clinical operational research during the fiscal year.

During 2013 EFY, EPHI generated and disseminated different research findings to support decision-makers, and different stakeholders to make evidence-based decisions on key priority communicable & non-communicable diseases, nutrition program evaluations, and the health system issues. About 75 peer reviewed research published on scientific journals and this shows 29% increment from last year performance. Also, different technical reports generated and shared to support routine program management, policy, and strategies developments on nutrition (food fortification, chemical and functional properties, under nutrition reduction, food based dietary, consumption levels of vegetables and fruits and vegetable oil fortification), Climate change and air pollution, Biosafety and microbiology and WASH.

In 2013 EFY AHRI has contributed five policy briefs including Anopheles Stephens in Ethiopia findings for action, Flow cytometry for the diagnosis of acute leukemia in Ethiopia, Look-see Neglected Tropical Diseases: Shout for Podoconiasis, Detection of the exposure to malaria parasites as a viable means for malaria elimination: Evidence from serological assay and development of SARS-CoV-2/COVID-19 Antibody Testing (SCAT) Kit. These policy briefs were prepared from biomedical and clinical research to the Ministry of Health (MOH) aiming to inform the potential policy implication of pieces of research evidence produced and the policy options with pragmatic translation strategic approaches into population practice and standard laboratory procedures to COVID-19 laboratories in Ethiopia.

In the same fiscal year, the institute has published 73 publications in scientific peer reviewed journals and prepared one research digest which has been distributed. In addition, AHRI has established a center of excellence in Integrated Knowledge Translation (IKT) in partnership with the Collaboration for Evidence-Based Healthcare and Public Health (CEBHA+) for training on evidence to policy translation for health systems to various stakeholders.

CHAPTER

7

PHARMACEUTICALS AND MEDICAL SUPPLIES

CHAPTER 7: PHARMACEUTICALS AND MEDICAL SUPPLIES

In this section, summary of major activities and achievements in pharmaceuticals supply management, medical equipment management and pharmacy services.

7.1. Pharmaceuticals supply

This section summarizes major achievements in the areas of pharmaceuticals supply chain management. It aims at improving the continuous availability of pharmaceuticals at an affordable price in a sustainable manner. The Ethiopian Pharmaceuticals and Supply Agency (EPSA) implemented different strategies such as cyclical procurement, category management system, framework agreement, to improve pharmaceuticals forecasting, quantification, procurement and contract management. With this regard, in EFY 2013, the availability of vital and essential pharmaceuticals at national level was 85% and 83% respectively.

EPSA has procured a total amount of ETB 17.01 Billion worth of pharmaceuticals and medical supplies in 2013 EFY. The amount of pharmaceuticals and medical supplies procured in the last five years has consistently increased from ETB 4.5 Billion to 17.01 Billion in 2013 EFY (figure below).

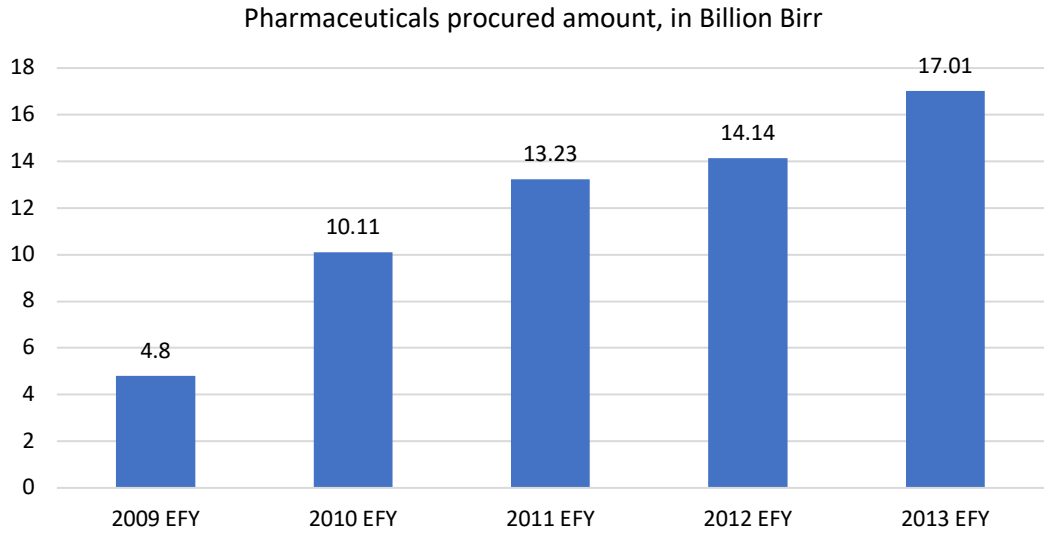


Figure 46. Trend of pharmaceuticals procured, amount in Billion Birr (2009 EFY to 2013 EFY)

Regarding distribution of pharmaceuticals, EPSA has distributed pharmaceuticals and medical supplies worth of ETB 27.6 Billion to health facilities (ETB 4.2 Billion Revolving Drug Fund (RDF) and 23.4 Billion worth of health program). Trend of pharmaceuticals and medical supplies distributed in the last five years shows that it has increased consistently over the years as shown in the figure below.

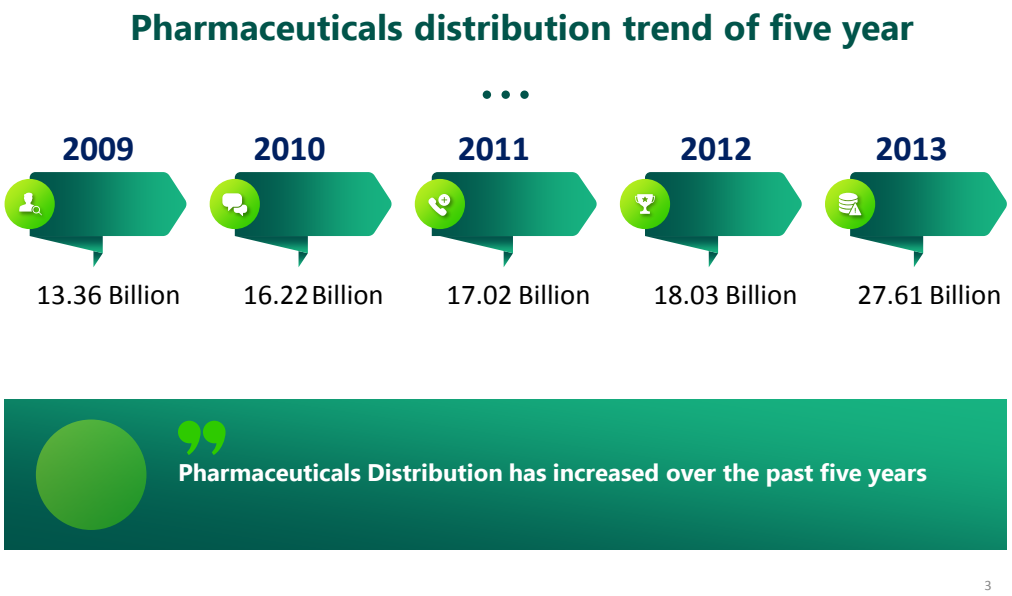


Figure 47. Trend of pharmaceuticals distributed, amount in Birr (200 EFY-2013 EFY)

In order to improve the availability of pharmaceuticals at health facility level, the MOH, EPSA and RHBs in collaboration with partners implemented quick-win initiative. The quick-win initiative is a platform that increases regular communication, information exchange and stock redistribution among EPSA warehouses and health facilities. With this regard, Fill-ifs initiative training was provided to staffs of 113 hospitals. The quick-win initiative increased availability of all pharmaceuticals at hospitals and minimize the stock difference among central warehouses, hubs and health facilities.

By implementing framework agreement and strengthening placement strategy, EPSA was able to minimize interruption in availability of supplies and reagents. Using framework agreement, 276 health facilities were equipped with medical equipment, supplies and reagents were supplied regularly during the fiscal year.

The annual inventory turnover rate of pharmaceuticals and medical supplies at the warehouses was 1.15%, which indicates that stocks are at least revolved more than one time in the budget year. The wastage rate of pharmaceuticals and medical supplies in the pharmaceuticals supply chain system was 2.32% in 2013 EFY.

In 2013 EFY, customer and stakeholder satisfaction surveys were conducted and the findings showed that the satisfaction levels as 67.8% and 72.5% respectively. Local pharmaceuticals manufacturing gap assessment was studied in collaboration with the manufacturers' union and other stakeholders and implementations of interventions has been started to improve their performance. Pharmaceuticals suppliers' performance assessment was also conducted and presented to suppliers in a conference. Directions were given in that suppliers will be notified their performance results periodically and the results of the evaluation will be considered as an input for procurement decisions of the Agency.

By an eased clearance process and lean operation, EPSA has saved about birr 58.3 million that would be paid if operated in the previous way of inefficiencies and wastefulness. This was achieved by implementing "Zero Demurrage" initiative. This has big potential in reduction of unit cost of medicine.

EPSA developed and implemented different soft-wares which include web based Lambadina application for its fleet management, electronic fixed asset information management system and SMILER for data capturing, analyzing and interpreting tools for evidence-based decision.

7.2. Medical equipment and Pharmaceutical Services

Auditable Pharmaceutical and Transaction Service (APTS)

As per Ministry of health plan to implement APTS in 80 health facilities in 2013 fiscal year, a financial support of 264,891.00 USD was provided to regional health bureaus. In addition to financial support, the Ministry has provided on-site technical support on pre-initiation, training, initiation and post implementation activities to the health facilities. Accordingly, the system was initiated in 107 health facilities, which is more than a 100% achievement against the annual target. This adds up with the 217 health facilities that implemented APTS before the current fiscal year to give a cumulative number 324 number of health facilities.

Medical Equipment Maintenance

Data was collected on 30,500 Medical equipment on the assessment conducted in 198 hospitals to assess their functionality status. Accordingly, medical equipment that are functional and non-functional were identified. Based on the assessment findings, an installation and maintenance campaign was undertaken in which 32 medical equipment importers and partner organizations were engaged and different spare parts used for installation and maintenance.

Figure 48. Medical Equipment Installation and maintenance campaign

With rigorous collaboration and coordination with RHBs and other key stakeholders, totally 9,045 medical devices are maintained and made functional and 4,092 medical devices are installed and made ready for service in the fiscal year. Through the campaign, more than 960 million USD worth of resource was able to be saved. In addition to maintenance repairs, necessary spare parts have been identified for 1,468 medical equipment and procurement process has been initiated.

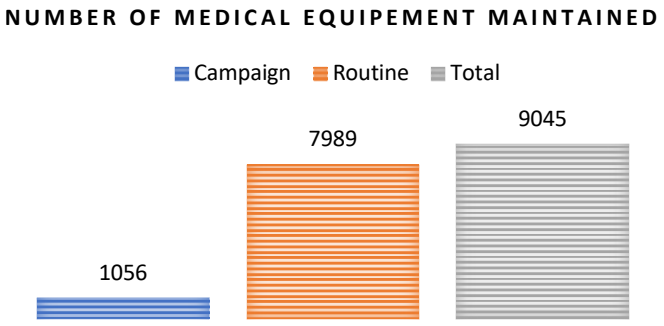


Figure 49. Number of Medical Equipment Maintained in 2013 EFY

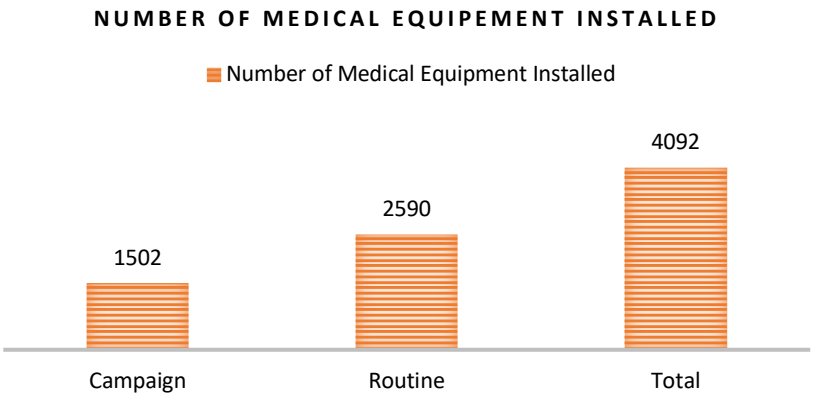


Figure 50. Number of Medical Equipment installed in 2013 EFY

Medical Equipment Distribution

During the fiscal year, a total of 41.7 million USD worth medical equipment was distributed to strengthen COVID response, to initiate new services and to equip health facilities. Health post and health center kits, spare parts, ambulance medical equipment, mechanical ventilator, oxygen cylinder, mobile x-ray, ICU package, and ECG Machine are among the distributed supplies.

Digitalizing Pharmaceutical and Medical equipment Management

Medical Equipment Management Information System implementation was among the major initiatives that is used to manage the procurement, installation, maintenance, and inventory of medical equipment in health facilities and which has crucial role in establishing standardized and uniform medical equipment management system. In 2013 EFY, the Ministry has planned to implement the system in 75 health facilities and enable to initiate it in more than 100 health facilities.

On the other hand, different capacity building and technical supports were carried out in collaboration with key stakeholders to revitalize and implement a web-based DAGU in health facilities. Data synchronization and data visibility dashboard was designed and launched to hospital managers. After testing the dashboard in selected health facilities, 50 facilities have utilized and to improved health commodity data exchange with Ethiopian Pharmaceutical supply agency (PFSA).

Antimicrobial resistant (AMR) prevention and containment

Several activities were performed to strengthen the antimicrobial resistance prevention and containment nationally including the revision of National Antimicrobial resistance (AMR) prevention and containment strategy. Awareness creation on AMR prevention and containment was provided to the public through radio and television. Besides, as part of institutionalizing AMR prevention and containment activities, in 2013 fiscal year more than 30 health facilities have initiated the antimicrobial stewardship program (ASP). This adds up with the 30 health facilities that implemented ASP before the current fiscal year to give a cumulative number of 60 health facilities.

COVID-19 and Emergency activities

Various supports and facilitations were conducted for natural and man-made disasters response. A total of 50.2 million USD worth of pharmaceuticals used for COVID-19 prevention and control were facilitated to be imported in duty-free. Total Cost of 4.3 million USD worth pharmaceuticals were distributed to regions and health facilities for law enforcement campaign. Moreover, more than 739,000 USD cost of emergency and ICU pharmaceuticals were distributed for potential risks associated with elections.

Other activities

- Acetic acid solution preparation for visual inspection of cervical cancer was initiated at health facilities' compounding pharmacy by adopting standard operating procedure and providing theoretical and practical orientation to health facilities and RHBs, which enables to improve the screening performance and quality of the diagnostic chemical.
- Activities to improve the monitoring and evaluation of pharmacy service, pharmaceutical supply chain management, medical equipment management through capacity building works and strengthening report and feedback system were undertaken
- The revision of national standard treatment guideline (STG) was finalized
- National traditional medicine management guideline was finalized. This is expected to clear stakeholders' engagement and facilitate their communication in standardizing the traditional medicine practice. Based on the guideline, training materials was developed and training was provided to stakeholders (including traditional healers). In addition, traditional medicine strategy was drafted
- National essential medical supplies list was prepared
- The development of quantification tool, which enables to undertake 2015 EFY pharmaceuticals quantification exercise by all federal and regional hospitals, which in turn used to standardized quantification and improve forecast accuracy
- Various capacity building was provided for pharmacy and biomedical engineering professionals of health facilities and RHBs on warehouse and inventory management, reverse logistic, ART pharmacy service, AMR and DAGU-2
- To improve maintenances capacity, skill based training on MCH, OR and laboratory equipment have been provided to all federal and regional health bureaus biomedical engineers/technicians

Challenges

- Poor preparation of sites for installation of medical equipment by health facilities
- COVID-19 related logistic activities affect the routine activities
- Interruption of DAGU-2 compromises the pharmaceutical management system in health facilities
- Low budget allocation by RHBs to improve the pharmaceutical and medical equipment management system

Way forward

- Allocating sufficient budget for the maintenance campaign and strengthening site preparedness follow up for medical equipment installation.
- Providing appropriate support for antimicrobial resistance (AMR) prevention and containment and improving traditional medicine practice
- Advancing warehouse and inventory management system in health facilities
- Strengthening web-based eAPTS, DAGU and MEMIS implementation at all levels

CHAPTER

8 HEALTH FINANCING

CHAPTER 8: HEALTH FINANCING

8.1. Resource Mobilization and utilization

Transformation in health financing is one of the five transformation agendas/priorities identified in the second Health Sector Transformation Plan (HSTP-II). Its major focuses include proactive mobilization of adequate resources from domestic and international sources, performing resource allocation and prioritization of health systems for efficient use of resources, strengthening bilateral partnership and implementing public-private partnership to meet the national and global commitments. The HSTP-II has undergone interventional costing, resource mapping and financial space analysis of resources for its implementation. The analysis showed that there is a 28% budget gas based on the base case scenario costing. Mobilizing adequate resources, improving efficiency, and implementing different innovative financing strategies are some of the strategies recommended to fill the financing gap of HSTP-II.

In this section, the major activities and achievements regarding resource mobilization and utilization that are performed in the first year of HSTP-II implementation are described.

1. Health care financing reform implementation

The Government of Ethiopia approved a health financing reform strategy in 1998 EC that aimed to raise additional resource for the health sector, enhance efficient allocation and utilization of resources, improve quality and coverage of health service delivery and ensure the sustainability of the health financing system. The reform began with what is now referred to as "first generation" reforms, which includes the following major components: (i) Revenue retention and utilization (RRU); (ii) Institutionalization of health facility governance system; (iii) User fee setting and revision; (iv) Outsourcing of non-clinical services at public hospitals; (v) Establishing and operationalizing private wings at public hospitals; (vi) Systematizing the fee-waiver system; and (vii) standardizing the package of exemption services. The major activities and achievements of the health care financing reform in 2013 EFY are as follows:

- Health Care financing reform components have been implemented at 96% of health centres and 99% of public hospitals. These health facilities have established a governing board that includes members from the community, they have their own autonomy for their operation and being managed through their respective governing boards
- Almost all health centres and hospitals that are implementing health care financing reform components have been retaining and utilizing their internal revenue (RRU). Retaining and utilizing internal revenue has become an important source of health facility operational budgets to improve the quality of health services
- Exempted health service and fee waiver system are implemented at public health facilities to ensure equity of health services and enable the poor to access health services without incurring a cost at the time of seeking health care. In 2013 EFY, more than 22 million ETH Birr was reimbursed to health facilities (for both exempted and fee waiver services provided).
- At the end of 2013 EFY, 135 hospitals were outsourcing one or more of the non-clinical services and 83 hospitals had established and operationalized private wings
- User fees are currently expected to reflect the cost of delivering services as well as the ability and willingness to pay of the service users. User fee setting, and revision exercise is based on the cost-sharing policy of the government. Some regions have exercised user fee setting and revision done at some hospitals and health centres. User fee for federal and university hospitals was set and revised and endorsed by the Council of Ministers and published on Federal Negarit Gazette, regulation No 477/2021

- Institutionalizing first generation health care financing reforms: Since the HCF strategy has been implemented for long, the reform components have matured and progressed well. Thus, the Ministry of Health (MoH) initiated to institutionalize the first-generation health care financing reforms at seven regional health bureaus, namely, Amhara, Oromia, SNNP, Tigray, Diredewa, Harari and Addis Ababa City Administration. To facilitate the transition and institutionalization process, MOH has developed an action plan for institutionalization of the first-generation reform and shared to the regional health Bureaus. Based on the action plan the following key activities were carried out:

    - **Establishment of Organizational structure:** A prototype organizational structure is developed, roles and responsibilities for each position is defined and monitored the customization and endorsement of the structures at regional level.
    - **Revision of HCF legal framework and implementation manuals:** A prototype health care financing implementation manual is developed and shared to regions. RHBs started to revise their regulation, proclamation, directive and implementation manuals based on their gaps and needs
    - **Preparation of training manuals: a** standardized prototype comprehensive HCF training materials such as Health Facility Governing Body (HFGB), Health Facility Management Committee (HFMC) and Health Facility Finance Staff (HFFS) were developed
    - **Capacity building activities:** Facilitation skill training was provided for master trainers

2. PUBLIC PRIVATE PARTNERSHIP IN HEALTH (PPP)

Enhancing private engagement in health is one of the fourteen strategic directions of HSTP-II. To enhance private engagement in health, one of the engagement platforms is creating a partnership between the public and private sectors. The PPP proclamation states that the objective of PPP is to improve the quality of public health services by creating a favourable framework for promoting and facilitating the implementation of privately financed projects. The Ministry of Health has established PPP team under the Partnership and Cooperation Directorate (PCD), which is responsible for coordinating the overall implementation of PPP project initiation, appraisal, implementation, and evaluation. At a federal government level, there is a conducive environment for the implementation of PPP as there is public private partnership policy and strategic framework including proclamation, directive, and guideline. The Ministry of health is also developing operational manual on PPP.

In collaboration with the Ministry of Finance and stakeholders, the PPP team at PCD has conducted feasibility study of Medical Gas Plant Placement and Diagnostic services (laboratory, Pathology, and Imaging services). In addition, pre-feasibility study on oncology service was conducted and the findings of the studies were submitted to Ministry of Finance for technical review. These projects were presented for the PPP board for approval and the Ministry succeeded in registering the projects as pipeline.

In 2013 EFY, the PPP team at PCD has participated in series of capacity building activities and all the team members are currently **certified in public private partnership professionals**. This is a prerequisite for the contracting authority to design and implement PPP projects.

3. Civil Society Organizations (CSO) Coordination

In the budget year, 40 new project proposals were appraised, all of which (100%) were endorsed for implementation as they were found to comply with the minimum requirement of MOH. On the other hand, a mid-term evaluation was conducted for six organizations and the findings of the evaluation was distributed to the concerned bodies. Two rounds of partnership forums were conducted in the fiscal year.

4. COVID-19 Pandemic Response Resource Mobilization in 2013EFY

Ministry of Health in collaboration with development partners has been working in the COVID-19 pandemic responses. In order to respond it effectively, the MOH has mobilized and allocated resources (in kind and in cash) from the government, development partners, CSO and Private sectors locally and internationally through proactive resource mobilization. Totally, 411,627,213 USD was mobilized from development partners (207,544,678US$), Ministry of Finance (86,952,524 US$) and other sources (117,180,011 US$).

Development Partners' Contribution to the health sector

The government of Ethiopia allocates budget for the health sector, but additional financing is required as the allocation from the government treasury is not adequate. Development partners contribute to the financing of the health sector through different financing channels. In 2013 EFY, a total amount of 473,449,951.95 USD was committed from development partners (DPs) and a total amount of 388,255,856.43 USD (82%) was disbursed.

Regarding SDG performance fund, 87,176,789.92 USD (22.4%) of the total disbursed budget from DPs was disbursed via the SDG performance fund. The major contributors of SDG performance fund were FCDO (57%) followed by GAVI (12%) and EKN (12%).

Table 25. Amount of fund committed and disbursed by development partners, 2013 EFY

S.N	Source of Fund	Commitment (in USD) in 2013 EFY	Disbursement in USD in 2013 EFY	Percentage of Disbursement
1	**SDG Performance Fund**			
	FCDO	24,676,506.71	49,782,848.00	202%
	EKN	10,725,067.07	10,621,960.00	99%
	Irish Aid	5,824,000.00	6,182,790.92	106%
	Spanish	1,082,939.02	1,170,800.00	108%
	UNICEF	500,000.00	500,000.00	100%
	UNFPA	50,000.00	50,000.00	100%
	WHO	50,000.00	50,000.00	100%
	Italian Coop SDG PF	5,600,000.00	6,064,409.00	108%
	GAVI	8,271,646.00	10,378,982.00	125%
	WB	36,230,000.00	1,875,000.00	5%
	KOICA	500,000.00	500,000.00	100%
	Total SDG performance Fund	**93,510,158.80**	**87,176,789.92**	**93%**
2	**Bilateral Partners**			
	CDC-Atlanta	3,000,000.00	2,900,000.00	97%
	Afr CDC -WB	40,000,000.00	11,453,574.43	29%
	COVID-19 Emergency Response - WB	117,940,175.00	101,520,827.62	86%
	EU	2,537,227.56	0	0%
	Italian Cooperation (for Developing Regions)	2,816,000.00	1,500,000.00	53%
	Total bilateral partners	**166,293,402.56**	**117,374,402.05**	**71%**

3	**UN Organizations**			
	UNICEF	9,766,133.00	9,284,879.00	95%
	UNFPA	5,868,854.00	5,842,686.99	100%
	WHO	8,368,418.00	4,347,671.64	52%
	Total UN organizations	**24,003,405.00**	**19,475,237.63**	**81%**
4	**Global Fund (GF)**			
	GF-Malaria	24,586,158.81	12,167,384.00	49%
	GF-TB	19,894,538.84	8,637,921.00	43%
	GF-HSS	21,250,766.16	11,506,627.00	54%
	GF-HAPCO	80,091,299.00	79,992,392.00	100%
	Total GF	**145,822,762.81**	**112,304,324.00**	**77%**
5	**GAVI**			
	GAVI-DATA QUALITY	2,445,934.00	2,262,288.85	92%
	GAVI-HSS	23,500,000.00	23,500,000.00	100%
	GAVI-PRI	3,500,000.00	0	0%
	Total GAVI	**29,445,934.00**	**25,762,288.85**	**87%**
6	**Foundation**			
	CIFF(SURE, Deworming, Gashero, SCI,O. Sight&End Fund)	9,586,213.30	8,432,708.44	88%
	BUFFET	3,000,000.00	15,719,946.00	524%
	IPF	527,000.00	475,890.52	90%
	One Wash	222,281.30	47,326.50	21%
	Sekota Declaration	1,038,794.18	1,486,942.52	143%
	Total (Foundations)	**14,374,288.78**	**26,162,813.98**	**182%**
	Grand Total	**473,449,951.95**	**388,255,856.43**	**82%**

8.2. Public Budget allocation

Percentage share of government health budget from the total government budget

The federal government of Ethiopia allocates an annual budget to regions and city administrations to support the implementation of health programs. The 2001 Abuja declaration urges African Union states to allocate at least 15% of the total government budget to the health sector. In 2013 EFY, 13.2 % of the total government budget was allocated to health, which is better than last year (which was 12%). Regions that allocated at least 15% of their budget to health include Gambella (19.5%), Harari (16%) and Sidama (15.4%). The other regions have allocated less than 15% of their total government budget to health. The lowest share of government budget to health was allocated in Addis Ababa city administration, with only 2% of the total government budget allocated to health. Compared to the previous fiscal year (2012 EFY), three regions have reduced the percentage share in 2013 EFY. These regions are Amhara, Benishangul Gumuz and SNNPR.

Table 26. Share of Total health budget (%) from total government budget in 2013 EFY

Region	Share of Total health budget (%) from total government budget	
	2012 EFY	2013 EFY
Tigray	10%	10.4%
Afar	13%	13.9%
Amhara	15%	12.7%
Oromiya	13%	14.5%
Somali	11%	14.4%
Benshangul Gumuz	15%	14.3%
SNNP	17%	14.8%
Sidama	NA	15.4%
Gambella	14%	19.5%
Harari	10%	16.0%
Dire dawa	12%	12.6%
Addis Ababa	6%	7.0%
Total	12%	13.2%

Financial Management and utilization

The sector has been financed from both government and donors. MOH have been working to ensure the appropriate and efficient utilization of resources in compliance with the Ethiopian government's financial and other resources administration rules and regulations. Grant budgets from different donors have been transferred to regional health bureaus for different health programs and projects. In 2013EFY more than 3.6 Billion ETB budget from different grants was transferred to regions, from which 48% of it was liquidated. For a grant that was transferred to regions in the last two years (Hamle 2011EFY to Sene 2013EFY), 65% was liquidated. This shows that there is a challenge in utilizing and liquidating grant budget timely, which calls for a stronger grant management system to improve timely utilization and liquidation of grant budget.

Integrated Financial Management Information System (IFMIS) implementation

Integrated Financial Management Information System (IFMIS) has been implemented since 2006 EFY. Taking lessons from the pilot implementation, the ministry has expanded the use of the IFMIS system to the management of grants, and expanded to federal hospitals and MOH agencies. In 2013 EFY, Monthly, quarterly and annual reports have been prepared and submitted to the Ministry of Finance with the IFMIS system

8.3. Health Insurance

One of the objectives of the second health sector transformation plan (HSTP-II) is accelerating progress towards universal health coverage (UHC). Achieving UHC requires improvement in service accessibility, utilization and financial risk protection. In order to avoid financial barriers for health care and protect people from financial risk, Ethiopia has been implementing various health financing strategies, including implementation of health insurance system. Community Based Health Insurance System (CBHI) is one of the mechanisms that has been implemented to improve health financing in the health sector. The Ethiopian Health Insurance Agency (EHIA), one of the seven agencies of the MOH, is responsible for the planning, implementation, monitoring and evaluation of health insurance program in Ethiopia. The Ethiopian Health Insurance Agency has been implementing CBHI related initiatives mainly focusing on four objectives: Expansion of CBHI services, improving equitable and quality service utilization, improving mobilization of financial resources for health insurance

services and capacity building to implement health insurance services. In this section, the implementation status of the community based health insurance system and its major achievements are discussed.

Expansion of Community Based Health Insurance Program

Community based Health Insurance was started in 2004 EFY as a pilot in some selected Woredas and its implementation has then been expanded to cover many Woredas and households at the end of 2013 EFY. At the end of 2013 EFY, 834 Woredas in Ethiopia have started CBHI scheme and health services using CBHI. From the total 834 Woredas providing CBHI service in 2013 EFY, about 100 of them have started the service in the fiscal year.

Table 27. Number of Woredas that started CBHI implementation and services, 2013 EFY

Region	**Number of Woredas that have started providing health care via CBHI**	**Remark**
Tigray	-	There is no status report in 2013 EFY from Tigray (At the end of 2012 EFY, 36 Woredas already started CBHI)
Afar	3	
Amhara	178	
Oromia	325	
Somali	1	
Benishangul-Gumuz	3	
SNNPR	160	
Sidama	31	
Gambella	3	
Harari	9	
Dire Dawa	1	
Addis Ababa	120	
Total	834	This doesn't include Tigray region

Membership status and CBHI fee Collection

In the 834 Woredas where health care service provision with CBHI is started (excluding Tigray region), 8,700,359 (61%) of the total eligible households were enrolled into the CBHI program. From the total 8,700,359 household members, 7,038,647 (81%) were paying members and 1,661,712 (19%) were indigents that received subsidy from the government. Household membership in 2013 EFY has increased from 49% in 2012 EFY to 61% in 2013 EFY.

Regarding fee collection, more than 2.02 billion ETB was collected from paying members, from which 1.86 billion ETB (92%) was deposited to bank. For indigent members, 147,086,643 subsidy was expected to be paid to Woredas but 137,533,737 ETB (94%) was paid.

Table 28. CBHI membership and fee collection in Woredas that have started CBHI service, 2013 EFY

Region	No. of Woredas that have started providing health care via CBHI	Member households (No. of households enrolled to CBHI)			Enrollment rate
		Paying members	Indigents	Total	
Tigray	-	-	-	-	-
Afar	3	6,782	2,370	9,152	40%
Amhara	178	2,154,903	508,220	2,663,123	67%
Oromia	325	3,499,964	774,585	4,274,549	61%
Somali	1	9,930	5,655	15,585	31%
Ben. Gumuz	3	13,095	3,394	16,489	40%
SNNPR	160	1,065,394	227,497	1,292,891	57%
Sidama	31	94,370	48,710	143,080	33%
Gambella	3	10,083	1,963	12,046	43%
Harari	9	19,043	7,353	26,396	55%
Dire Dawa	1	12,206	9,208	21,414	46%
Addis Ababa	120	152,877	72,757	225,634	76%
Total (excluding Tigray)	834	**7,038,647**	**1,661,712**	**8,700,359**	**61%**

Other major Insurance related activities and achievements in 2013 EFY

- In 2013 EFY, conducting audit was expected in 642 Woredas, but audit was conducted in 539 Woredas (84%). The other Woredas are on the process of auditing.
- Regarding CBHI ID card distribution, 88% of new household members in new and existing CBHI Woredas were provided CBHI identification card.
- In the fiscal year, 830,533,836 ETB was reimbursed to health facilities that provide health services to CBHI members. From the total pay, 53% was reimbursed to health centers, 36% was to hospitals, 5.4% to third party insurance and 5.6% for other payment
- The average pay per CBHI member was 29 birr per person at health centers and 116.55 birr per person at hospitals
- A readiness assessment was conducted in 312 health facilities in 2013 EFY. The plan was to conduct the assessment in 400 health facilities.
- Capacity building trainings were provided to health extension workers, kebele management members, CBHI staff, health workers and other individuals
- A 10 years strategic plan preparation is in the final stages. It will soon be completed
- Monitoring and evaluation manual is prepared and a training is provided to regional health bureau staff
- The preparation of the following documents is completed: Medical audit manual, CBHI communication strategy, third party insurance agreement manual, CBHI members compliant handling management system and other documents
- Social mobilization and awareness creation activities were performed through social media, workshops, meetings, trainings, media and other mechanisms

Challenges

- CBHI proclamation is submitted for approval but not yet approved
- Lack of adequate human resource and structure
- Lack of comprehensive health services in some health facilities
- Shortage of medicines in health facilities and referral of CBHI members to private health facilities
- Shortage of medicine at health facilities that affect the quality of care to CBHI members
- COVID-19 has created a challenge in social mobilization and other CBHI services
- In some Woredas, the amount of CBHI resource collected is low and does not cover payment to health services provided
- Shortage of budget to cover CBHI payment to in some Woredas

Way forward

- Follow the approval process of CBHI proclamation
- Preparation to initiate social health insurance system for the formal sector employees
- Digitalize CBHI information system
- Conduct social mobilization and awareness creation activities
- Strengthen resource mobilization activities
- Expand CBHI implementation by starting the scheme in new Woredas
- Take appropriate actions based on CBHI audit findings

CHAPTER

PUBLIC HEALTH EMERGENCY PREPAREDNESS AND RESPONSE

CHAPTER 9: PUBLIC HEALTH EMERGENCY PREPAREDNESS AND RESPONSE

The global health system has been challenged due to different disease outbreaks, man-made and natural disasters which predominantly affect the health systems. Thus, to respond to a crisis, be it a disease outbreak or other disruption resulting in a surge in demand for health care, both a vigorous public health response and a highly proactive and functioning health-care delivery system are required. The Ethiopian public health institute (EPHI) has been implementing public health emergency activities intensively in response to the increasing public health crisis. Public Health Emergency Management (PHEM) aims to improve how the health system deals with existing and evolving disease epidemics, as well as natural disasters of national and international concern. It is designed to ensure rapid detection of any public health threats, preparedness related to logistic and fund administration, and prompt response to and recovery from various public health emergencies.

In 2013 EFY, the Ethiopian health system was challenged by different types of public health emergencies, including the COVID-19 pandemic. This section of the report summarizes major activities related to public health emergency management in 2013 EFY, which include epidemic prevention and response and responses to conflict areas.

9.1. Epidemic Prevention and Control

During 2013 EFY, about 348 public health alerts were reported and 93% of those alerts were confirmed within 48 hours. About 324 (93%) of them were outbreaks, and the remaining were other public health rumors. Of those public alerts, 40% were for acute watery diarrhea (40%), Guinea worms (20%) and the remaining were for Arbovirus and common cold-related diseases.

About 91% of disease alerts and unusual public health events were crosschecked at points of rumors using public health experts in the health system. The details of each disease are described below.

1. Anthrax

In 2013 EFY, 152 anthrax cases were reported from Gamo zone (SNNPR), but with no death report. The timeline of anthrax cases in Gamo Zone is described in the figure below.

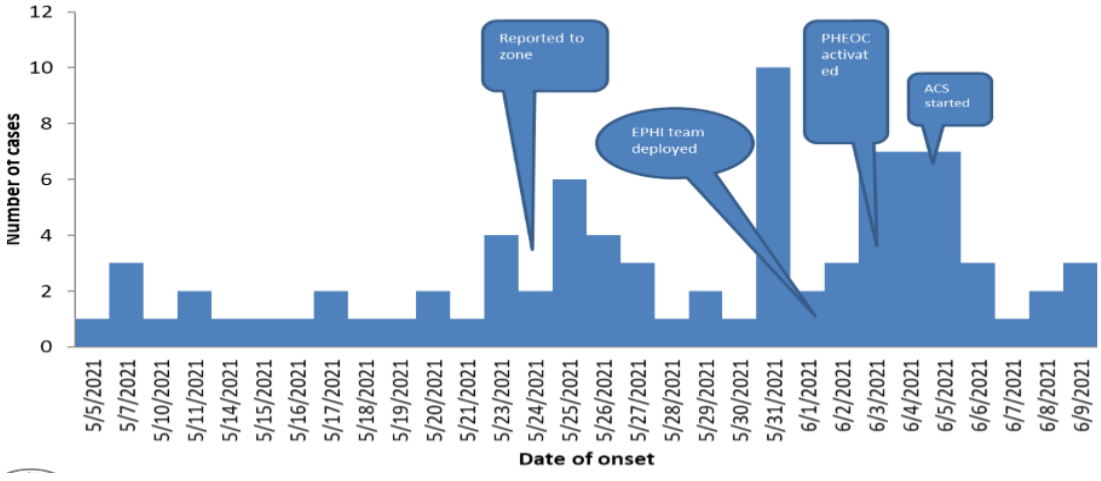


Figure 51. Anthrax outbreak cases in Arbaminch town, SNNPR, May-June 2021

2. Suspected Cholera

In 2013 EFY, 8,495 cases and 96 deaths from suspected cholera were reported from Oromia, Sidama, Gambella, and SNNP regions (see figure below). Since April 2019, a cumulative of 19,844 cases (124.3 people per 100,000) and 327 deaths (with a case fatality rate/CFR of 1.6%) have been reported across the country from the beginning of the outbreak. There has been no recent active cholera outbreak in the last two months.

To control the outbreak, the government has implemented disease surveillance activities such as early case detection, case management, and the prepositioning of medical and laboratory supplies. About 1,632,461 population groups with 97.3% coverage were vaccinated in targeted woredas in Oromia, SNNP, Gambella, Sidama, and Somali regions.

Table 29. Regional distribution of suspected Cholera cases, deaths and CFR in Ethiopia, 2013 EFY

Region	No. of affected Woredas	No. of Cases	No. of deaths	CFR (%)
AA	12	18	0	0.0
Afar	6	365	2	0.5
Harari	2	15	0	0.0
Oromia	25	1177	13	1.8
SNNPR	19	5303	53	1.7
Somali	10	1609	28	1.7
Tigray	5	8	0	0.0
Total	79	8495	96	1.6

3. Acute flaccid paralysis/Polio

In 2013 EFY and previous years, a cumulative of 67 (60 circulating and 3 VDPV2) cases were reported. The last case was reported on March 16, 2020 in the SNNPR region, Hadiya zone. As part of the response, 8,216,768 children were vaccinated with a first dose and 8,660,434 eligible children were vaccinated with a second round vaccine. All used and unused MOPV2 vials have been retrieved and destroyed to replace it with nOPV2.

Table 30. Total number of children vaccinated in response to polio outbreaks

Response	Target	Round	# Vaccinated	Cov.(%)
Response 1	6,746434	R1	6,966,751	103%
		R2	7,364,457	109%
Response 2	1,333,280	R1	1,250,017	94%
		R2	1,295,977	97

4. Measles

A total of 730 cases and 13 deaths of measles were reported in 22 woredas of five regions in 2013 EFY (figure XX). The measles outbreak was reported from Amhara, Somali, SNNPR, Oromia, and Harari regions.

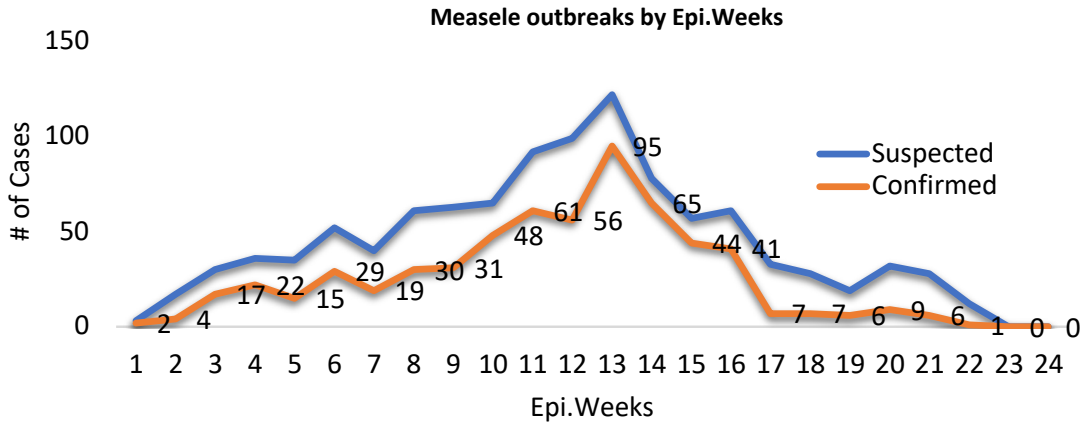


Figure 52. Measles outbreaks in Ethiopia, by Epi Weeks: Week 01-24, 2021

Most of the measles outbreaks were managed with response through enhancement of the surveillance system, reinforcing the routine immunization, case management including supplementary immunization activities (SIAs), and advocacy, social mobilization, and community engagement. Measles outbreak SIAs were conducted in 16 kebeles in the Karat and Segen zones and a total of 19,396 children were vaccinated.

Table 31. Measles Outbreak Response from 2017 to 2021

Indicators	Target	2017	2018	2019	2020	2021
Annualized rate of investigation of suspected measles cases per 100,000	>=2	4.8	3.6	3.1	2.9	4.7
Non-Measles Febrile Rash Rate	>=2	2.3	1.9	2.4	3.2	1.2
Proportion of Woredas with ≥1 case per 100,000 with a blood specimen (%)	>=80	76	63	69	70	80
Proportion of reported measles cases with blood specimen (%)	>=80	42	100	100	100	96.9
Proportion of measles IgM+ (%)	<10	49	40	18	13.2	25

5. Dengue fever

Dengue fever outbreak declared in the dire Dawa city in August 2020 and bout 577 dengue fever cases were reported. Similarly, on December 10, 2020 suspected outbreak of dengue fever was reported from Somali region, Dollo zone, Warder Woreda. Accordingly, about 36 samples were collected and 6 were positive for dengue fever virus. There was no death report

6. Yellow fever

Yellow fever outbreak occurred in Gurage zone, SNNPR in February 2020. On March 03, 2020, a report was received from St. Paul hospital that two patients with symptoms concurrent with Yellow fever infection and one of them died. Yellow fever reactive mass vaccination campaign was conducted SNNP and Oromia and 651,811 target population groups were vaccinated in 15 Woredas and 189 kebeles through a vaccination campaign.

7. Dracunculiasis

A total of 17 cases and infections were reported between Hamle, 2012 to Yekatit, 2013, including **5** human cases, **8** cat infections, **2** dog infections, and **2** baboon infections. All cases were handled using all response pillars,

including community conversation (CCC), vector Control, active case surveillance, and frequent supervision visits from the Ministry of Health, EPHI, RHB and key partners.

9.2. Health Emergency response in conflict affected areas

9.2.1. Health Emergency response in Tigray region

Following the conflict in Tigray region, MOH in collaboration with its stakeholders has established a national emergency task force to respond for health emergency in the conflicted affected areas in the country. In this section, summary of the major emergency response and recovery activities conducted in Tigray region, from December 2020 to June 2021 (until the withdrawal of ENDF from Tigray)

Leadership and governance

- The ministry of health established a national task force and advisory group that meet weekly to monitor the health emergency response.
- Comprehensive Tigray health system recovery plan was prepared in coordination with Tigray RHB and shared for stakeholders
- Two Review meeting conducted at Mekele and Addis Ababa, in the presence of MoH senior leadership, directors, and the Health bureau management
- 129 health professionals including senior specialist were mobilized and deployed to hospitals in the conflict areas
- Senior Technical staffs were deployed to support the region and frequent visit was made by MoH senior leadership to the region.
- Different capacity building trainings in program implementation was provided for the RHB and health facility staffs

Health service delivery

There were only 4 Hospitals and 17 Health centers that were functional and providing service actively to the community when the MOH and the interim government started to activate the regional health system. The Ministry and all stakeholders devise mechanism to ensure provision of essential health service using functional health facilities, mobile health and nutrition team and establishing temporary clinics in IDPs with high population volume. With the emergency response team, the following results were documented:

- The number of functional health centers and hospitals increased to 118 and 25 respectively
- 65 mobile health and nutrition team with 6 to 8 health workers were established to provide essential health service in areas where health facilities are damaged and inaccessible due to security
- More than 93% of health professionals re-started their regular work at health facilities
- Essential services such as OPD service, maternal and child health services resulmed at health facilities
- Blood banks were reactivated and distributed ready blood to health facilities as per the demand from health facilities

COVID-19 Response

- Six COVID-19 treatment centers were reinitiated for admission and treatment of patients
- COVID-19 testing was re-initiated and 4,358 covid-19 suspected cases were tested, 1,411 (42.4%) of them were positive.
- 150 Oxygen cylinders were distributed to the region and budget requested to initiate oxygen and waste treatment plant for Ayder Hospital
- National COVID-19 vaccination launched at Mekele at the presence of H.E. the Minster, Tigray RHB Head and other stakeholders
- 128,000 COVID-19 vaccine was distributed to the region and more tha 89,535 people were vaccinated

Sexual and Gender based violence and Mental health service

- Mobilized 57 health professionals (Psychiatrist, clinical psychology, Physicians, Nurses, Gyn and Obs. from university hospitals
- Established **one stop centers** in Mekele, Axum, Adigrat, shire, Adwa, and wukuro to provide service for victims; Logistic support and RH kit provided for the one stop centers
- 8983 Toll free golden line was launched to report and seek any service for clients with SGBV and /MH problem
- Standby ambulances were assigned for any referral of the victims to the nearby centers
- Standardized Assessment checklist developed and used to screen patients with mental health problem
- Individual Counseling, Group Counseling, Psycho-education and Psychiatric Services provided for patients with mental health
- Simple screening tools used to identify SGBV cases mass Education provided in the SGBV prevention, Integrated with MHNT to identify, and refer the SGBV victims

Pharmaceuticals and Logistics

- A total worth of 103,392,925.15 million RDF and program drugs were distributed to Tigray region Health facilities from Dessie, Gonder and Semere hubs and 260,501,889 Million worth drugs and supplies were distributed from shire and Mekele.
- In addition, different medical equipment such as mechanical ventilator, X-ray machines, patient bed were distributed to Tigray region.
- Other logistics such as health center kits (worth 4.2 million), desktop computers (worth >2.8 million Birr), 20 ambulances (12 from MOH and 8 from Regions), 25 refrigerators and 2 cars were provided

9.2.2. Emergency Health Response to Other conflict affected areas

It is to be recalled that considering the unwanted war the government was forced into since October 2013 EFY and the current situation in the Tigray region, the government implemented a unilateral ceasefire decision in June 2013. However, this unilateral ceasefire decision did not bring the desired result but rather the situation escalated into violence in the neighboring Amhara and Afar regions, as well as in other regions of the country.

In the face of such conflicts, the health care system and service delivery is one of the most highly affected and pressured systems. Over the past three months, especially in the two regions (Amhara and Afar), there has been widespread displacement of healthcare workers, shortages of medical supplies and equipment, water and

power source outages, and other health facility infrastructures have been destructed. As a result, efforts are being made to reduce the impact of the situation, number of illnesses and deaths by strengthening the health service delivery system in a way that will address the current situation. Minister of Health is collaborating and coordinating with regional health bureaus as well as other partner organizations to provide Critical support in health emergency response.

Health facilities in the conflict zone have been shut down and severe damage has been incurred on their infrastructures. Even though the depth and extent of the damage have not yet been fully investigated so far, we have learned from the reports we have received, many health facilities, healthcare workers and ambulances have ceased providing service. Ambulances that were purchased at a high cost to reduce maternal mortality were robbed and injured, and most are out-of-service. Accordingly, 49 in Amhara, 16 in Afar, 9 in Oromia, 6 in Benishangul-Gumuz and 6 in Somali 6 (86 ambulances in total) were looted or destroyed.

In general, many health facilities and ambulances have been forced to stop providing services, and the closure of health facilities has led to the displacement of healthcare professionals. In addition to disrupting the health service delivery in the area, this has put a strain on other health facilities. Thus, 7629 in Amhara, 108 in Oromia, and 340 in Afar (8,077 professionals in total) have been displaced. Great efforts are being made to respond at all levels in collaboration with the regional health bureaus. In addition, the extent of the damage will be assessed and explained in detail by experts consecutively.

Activities on availing essential health services and support for IDPs

All the necessary and versatile support is being provided to the regions to provide essential health services to those displaced by the conflict and to communities living in the conflict zone. So far, according to local reports, there are a large number of IDPs in various shelters. In the Amhara region alone, there are more than 1,837,642 million IDPs, of whom 256,070 of the IDPs are under the age of five and 71,641 are pregnant and breastfeeding mothers. There are also 112,000 IDPs in Afar region, 193,040 in Benishagul Gumz, 559,122 IDPs in Oromia, of which 56,880 are children under the age of five, and 19,880 are pregnant and lactating mothers.

Efforts are being made to provide health services to IDPs in the shelters, while mobile health and nutrition groups (MHNT) are being set up and deployed to reach the inaccessible portion. So far, 9 teams and 14 temporary clinics in Amhara as well as 5 temporary clinics and 13 teams in Afar are providing services and are working to organize and deploy additional teams based on the demand.

Activities on nutritional assessment

In Amhara Region, Nutritional Screening was performed for 16,419 children under the age of five, among which 4,137 were MAM and 1,929 were severe acute malnutrition (SAM) cases. 8,242 pregnant and lactating mothers were screened and 940 were diagnosed with moderate acute malnutrition (MAM). Children with malnutrition are being treated.

In Afar, 9,000 children under the age of five were diagnosed with malnutrition, 3,457 with moderate acute malnutrition (MAM), and 2,425 with severe acute malnutrition (SAM). Nutritional assessment was done for 21,345 pregnant and lactating mothers as well. Nutrition supplementation and treatment are being provided for these people.

Human resource support

Health professionals have been sent to the affected areas to provide professional support. So far, 350 for Amhara, 54 for Afar, and 45 professionals for referral health facilities that provide service related to the conflict, which makes a total of 449 professionals have been assigned. Following the request of the regions, the necessary preparations are being made to send more professionals, and it is understood that there is a great desire from health professionals to be there and support on the ground.

Medical supplies and equipment Support

Health facilities in the conflict zone are overwhelmed. To respond to the situation medical supplies and equipment are being distributed from the Ethiopian Pharmaceutical Supply Agency hubs. Accordingly, in addition to the support provided before June 2013, the following support has been provided in the last few months alone (until September 2021). Medical supplies worth more than 397 million Birr was supported to conflict affected facilities in Amhara, Afar, Benishangul Gumuz and Oromia regions. In addition to the regular distribution and support to facilities, the stockpile of EPSA branches is constantly being filled to prevent Stock outs.

Blood donation and supply

Following a national call, young people and volunteers are donating blood locally and the collected blood is being distributed to health facilities.

Cash Support

MOH transferred large sums of money to the regions for support of regular health activities. In addition to the regular support, more than 12 million birr to Amhara, more than 3.5 million birr to Afar, and 3 million birr to Oromia, a total of 18.5 birr million has been transferred for support during this conflict. In addition to the support provided by our Ministry, MOH agencies are also providing significant financial and in-kind support.

CHAPTER

COVID-19 AND ITS RESPONSE

CHAPTER 10: COVID-19 AND ITS RESPONSE

Note: This chapter includes mainly for the period October 1, 2020-August 2021. Comparison of this period with the overall COVID-19 trend is also described.

Number of infections and deaths due to COVID-19

Between October 1, 2020 to August 31, 2021, 1,967,064 tests were conducted, from which 232,767 cases were detected, with positivity rate of around 11%. The majority of cases in the last 12 months were reported from Addis Ababa, followed by Oromia and SNNP. Since COVID-19 was reported in Ethiopia in March 2020, an overall 3,301,802 tests were conducted, among which 319,101 cases were detected with an overall positivity rate of 9.7%. (Figure below).

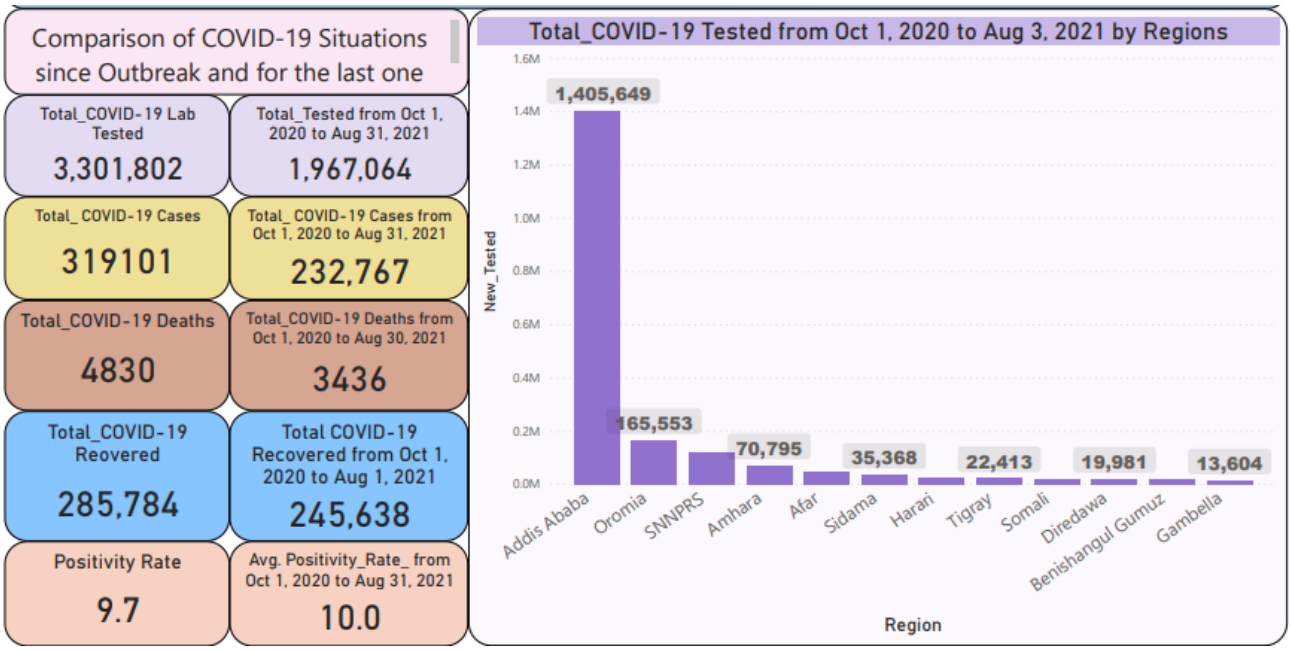


Figure 53. COVID-19 situation in Ethiopia: Total since the pandemic started versus October 1, 2020 to August 31, 2021

Since the start of COVID-19 pandemic until August 31, 2021, there were 4,830 deaths and 285,784 recoveries. Among these, 3,436 of the deaths and 245,638 recoveries were reported from October 1, 2020 to August 31, 2021.

The source of confirmed cases during the past 12 months were from Community (88.42%), Contacts (11.03%) and imported (0.55%). From the total COVID-19 patients admitted, 0.12% were asymptomatic, 62.1% had had mild symptoms and the rest had moderate to severe illness.

Overall 77.2 percent of those who died are above 55 years old. During the past 12 months, most of deaths, were in Addis Ababa (2099) followed by Oromia (515), Amhara (246), Sidama (151), Harari (138) and SNNPR (131).

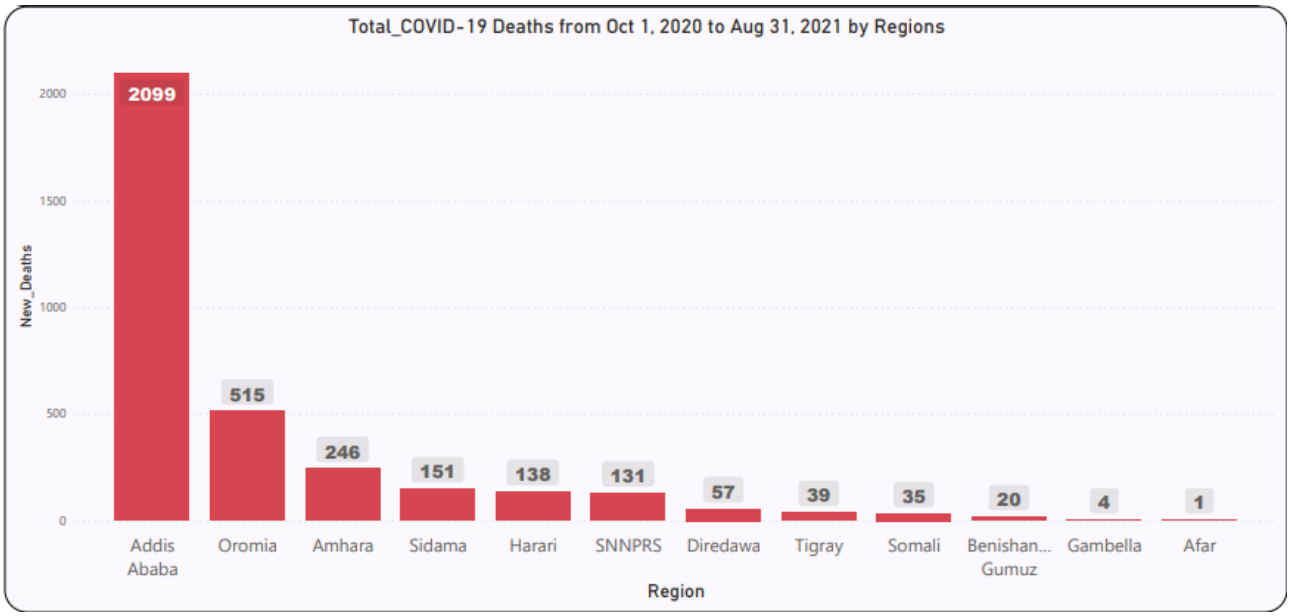


Figure 54. Number of deaths due to COVID-19 by region, from October 1, 2020 to August 31, 2021

Until August 31, 2021, overall 63,877 infected people were admitted to facilities for isolation or treatment centers throughout the country, among which, 27,366 of the infected people were admitted in the last 12 months (October 2020 to August 31, 2021).

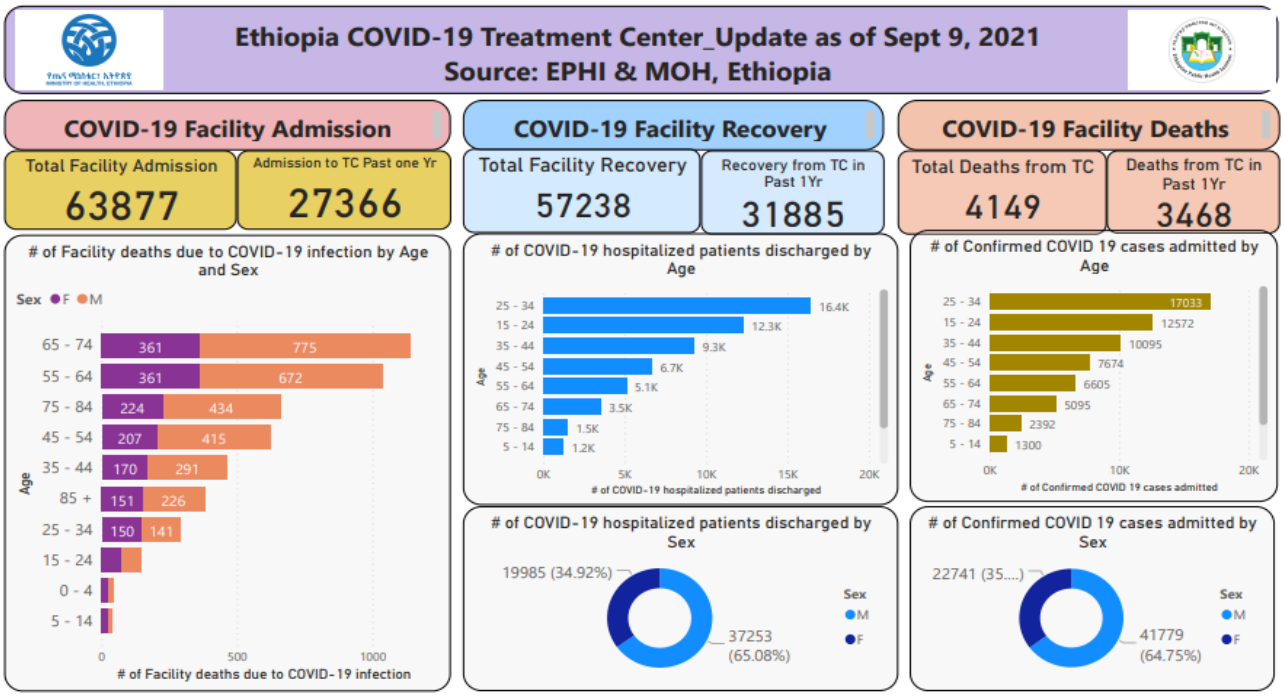


Figure 55. Summary of COVID-19 situation in treatment centers from October 1, 2020 to August 31, 2021

Overall, 235,514 cases were on home-based isolation and care (HBIC), among which 157,887 were in the past 12 months. Overall, 227,052 of those on HBIC were recovered and during past 12 months 171,793 were recovered.

Total death from HBIC was 38 and during the past 12 months 34 death were from HBIC. Total case transferred to COVID-19 treatment center from HBIC were 981 and total case transferred from COVID-19 treatment center to HBIC were 1992.

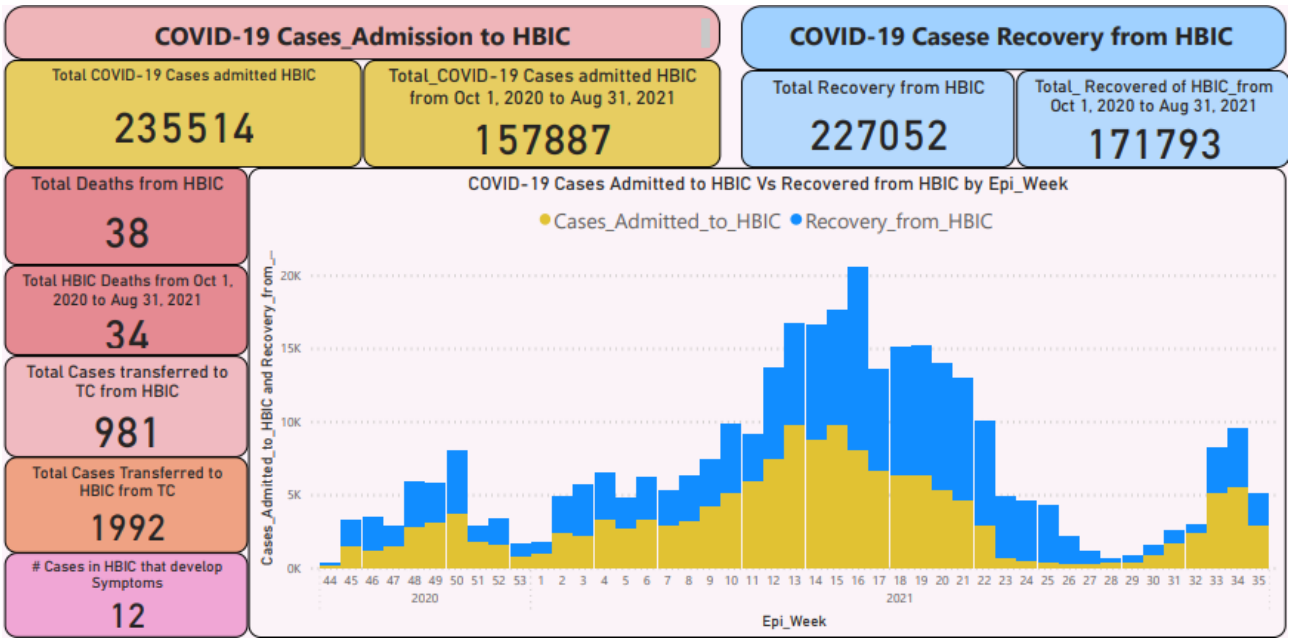


Figure 56. Summary of COVID-19 situation in Home based isolation centers: Total since COVID-19 started and October 1, 2020 to August 31, 2021

Health care providers infection

A total of 3404 health care providers were infected with the virus since the pandemic started. From the total, 504 of them were infected in the past 12 months (October 1, 2020 to August 31, 2021). Overall, the majority of the infected providers are from Addis Ababa (1407), followed by Oromia (501), and the lowest is from Sidama region (96). From the total infected health care workers, 3298 were recovered as of August 31, 2021.

A total of 40 health care providers deaths were registered and 27 of them were during the past 12 months. Out of the total deaths, 32% were nurses, 19.8% physicians including interns, 8% were health officers, 4.1% were midwives and 6.2% were laboratory technicians.

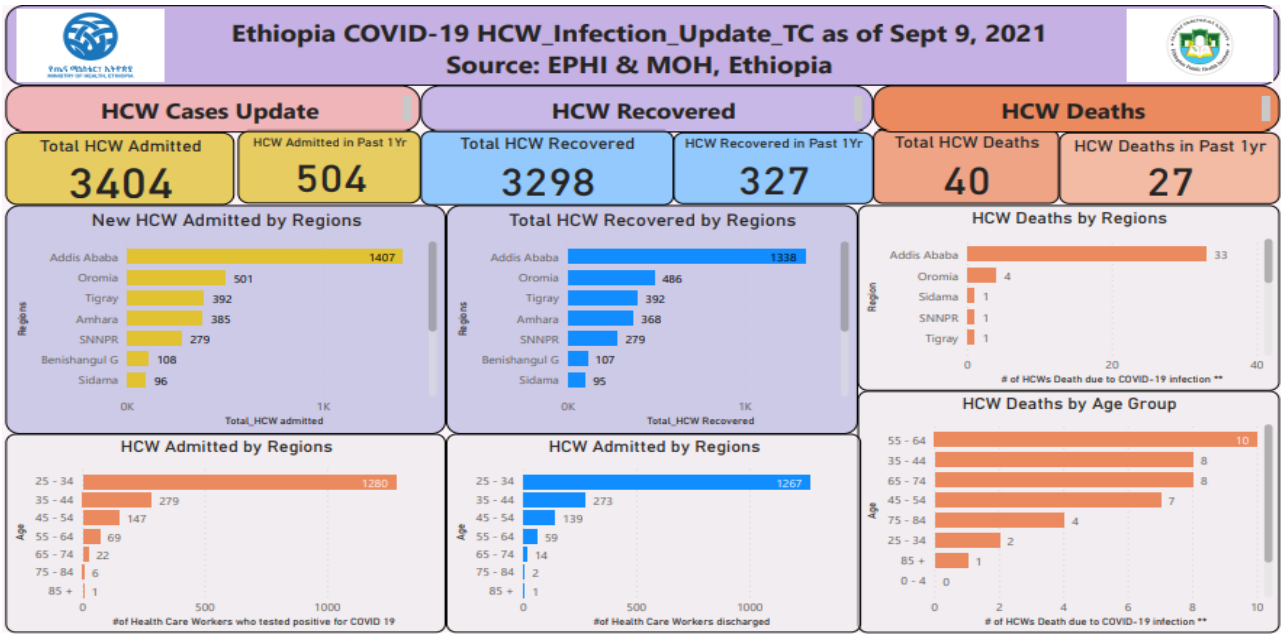


Figure 57. Summary of COVID-19 in health care workers, august 31, 2021

COVID-19 Preparedness and Response

Coordination

The national Public Health Emergency Operation Center (PHEOC) has been collaboratively working with stakeholders, government agencies, partner organizations, UN agencies, embassies, hospitals, industrial parks and others. With the intent of COVID-19 information sharing and response activity facilitation, morning briefing of Incident Management System (IMS) has been conducted every day by core IMS staffs and key partners' representatives. There has also been weekly joint meeting, every Tuesday, among the national and regional Emergency Operations Centers COVID-19 response IMS to evaluate weekly COVID-19 situations, progress of response strategies, challenges faced and way forwards. The virtual meeting of Joint Steering Committee encompassing MOH, Agencies and RHB top leadership under the leadership of H.E Minister of Health has been ongoing. This meeting is held either weekly or once in two weeks depending on the urgency of the situation and need.

Emergency Operation center

The Emergency Operations Center has been functional facilitating every COVID-19 preparedness and response activities 24/7 at national level.

Planning, Monitoring & Evaluation

The 2013 EFY Emergency Response and Plan has been prepared and shared at both national and regional levels. Various initiatives and campaigns like Community Based Activities and Testing (CoMBAT), COVID-19 sero-survey, No Mask No Service initiative and COVID-19 response revitialization/*Dagim Tikuret* have been also been prepared and monitored. Intra action review Conducted at national EOC, Task force and all regions. COVID-19 response revitialization/*Dagim Tikuret* was launched on 17 May 2021 to revitalize COVID-19 at multiple level. The national overall House-to-House visits performance was 30.9% with 15.4% at urban and 85.2% at rural. Even though the plan was to test 14000 test per day, only 35 percent of it was achieved.

Daily situational report (SitRep) all 365 days of 2013 EFY and 53 Weekly bulletin in all weeks of year has been disseminated through EPHI website. Besides this, more than 33 different guidlinese has been developed and disseminated. A new COVID-19 directive (directive 803/2021) which is a revised version of the former directive 30/2020 has also been developed and disseminated to the public and authorized legal entities.

Daily morning plan submission and afternoon report from all EOC section was undergoing and being monitored.

Logistic

There has been ongoing distribution of PPE, Viral Transport Media (VTM), swabs, pharmaceuticals and other medical supplies to isolation and treatment centers. An estimated 2.03 billion worth supplies has been distributed in 2013 EFY. There has also been Resource mobilization from governmental, Non-Governmental organizations, Diasporas, individuals, and partners for COVID-19 response. Various activities has been performed to equip COVID-19 treatment centers by human resource and infrastructure. Among these: ICU training for 25 facilities (for 100 individuals), 124 MVs and 216 patient monitor and ICU beds and1453 moderate/ severe beds have been distributed to regions.

Laboratory activities

Laboratory service expansion has been one of the major activities done under the laboratory section increasing daily surge to 25,000 tests. Eighty-four RT-PCR testing laboratories were established nationally (including 21 private & 1NGO). New testing technologies, Antigen Rapid Diagnostic Tests (Ag-RDT), were evaluated &

verified to use in Ethiopia. Private Sectors has also started COVID-19 test for travelers and others. Starting from September, 2021 COVID-19 negative result was communicated to clients though SMS

More than 160 professionals has been trained on COVID-19 sample collection while 147 laboratory professionals received refreshment training on RT-PCR testing from zones, regional labs and Universities level. Ag -RDT Training of Trainers (TOT) for 40 Laboratory professionals and basic training was provided to regions for 252 Laboratory professionals. Supportive supervision and mentorship has been conducted in regions by deploying experts from the national level.

National capacity to conduct Genomic sequencing was built which enabled the country to detect the new SARS-COV-2 variants, Alpha, Beta and Delta.

Quality Assurance was another major activity performed in the fiscal Year. Forty-seven actively working PCR laboratories were enrolled in first round which was increased to 60 in the second round. Fifty Ag-RDT testing facilities enrolled in Proficiency Testing panel program. To enhance the quality assurance of the laboratory National testing strategy & algorithm developed & shared, national quality assurance guideline was drafted and regular Turnaround Time (TAT) monitoring and feedback provision have been conducted.

Between October 01, 2020 and August 31, 2021, laboratory tests were performed with the positivity rate of 10.0%. The trend of laboratory test in weeks is shown below.

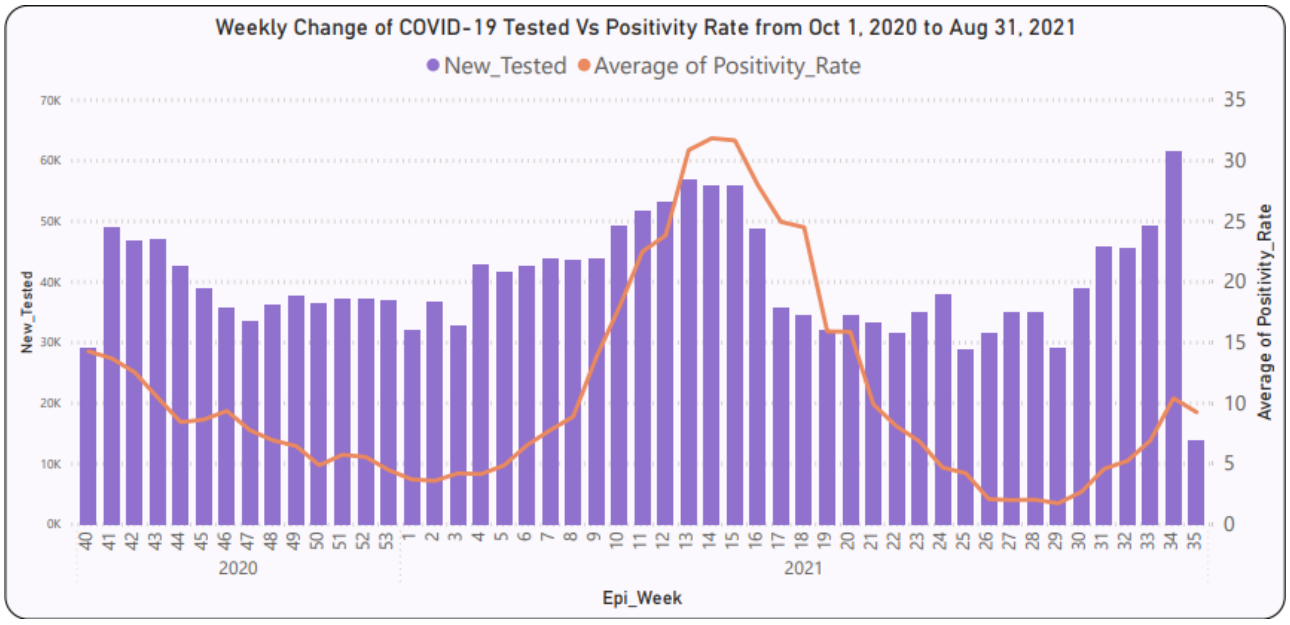


Figure 58. Trend of laboratory test from October 1, 2020 to August 31, 2021 by Epi-weeks

Epi Surveillance

A total of 392,776 rumors were received and 364,739 of them were investigated from October 1, 2020 to August 31, 2021. More than 332,681 contacts were traced, followed and linked to laboratory for testing. Guidelines were revised based on existing scientific evidence. Over 30 high-risk sites assessment and five cluster cases Investigations were conducted in the period.

Point of entry screening

Interventions implemented at Point of entry (PoE) aimed at the identification of ill travelers with symptoms and signs of COVID19, identification of appropriate public health measures such as quarantine, isolation or

treatment facilities at PoE, and provision of information to travelers on the public health risks and required precautionary measures during travel. Standard operating procedures and COVID-19 health declaration forms developed for PoE sites facilitated and enhanced health screening, information gathering and contact tracing for arriving passengers. Isolation Center at Point of entry prepared and guidance prepared according to Situation on quarantine and Requirement of entry. A total of 1,584,356 people screened and more than 55,674 returnees were received and tested at POEs

Case Management

A total of 333 COVID-19 treatment centers have been established and equipped by 653 ICU Beds, 279 MV, 16,000 beds, 4383 oxygen Cylinder and 950 oxygen Concentrators. The national oxygen production capacity was increased from 1900m^3/hr to 3091m^3/hr. Fifteen Private health facilities are engaged in COVID-19 case management 13 as treatment center and 2 HBIC follow up. Mobile based HBIC follow up system is in place in Addis Ababa. Private ambulances are being utilized for severe & critical case referrals in Addis Ababa. Death audit and assessment of quality care have been conducted in some treatment centers and COVID-19 case management service-integration was implemented in 70 health facilities. Furthermore, field hospital and millennium hospital were prepared and equipped to enhance COVID-19 patients' care capacity.

Mental Health and Psychosocial Support (MHPSS) have also been given an intense focus in treatment center. Accordingly, 28 MHPSS clinics were established and 52 Universities MHPSS team were formed.

Protection of Special group

In general 32836 old age at 26 geriatric centers, 150,000 homeless, 129,033 prisoners at 122 prisons, 938616 refuges and 50,000 women at different sites were reached. Health education and different support has also been given. Screening for COVID-19 has been performed at special setting and capacity building for Workers working in Disability associations, Prisons, IDP sites, Geriatric centers.

Infection prevention and Control

In the last fiscal year, regarding COVID-19 infection prevention and control, various guidelines and informative video spots were prepared and shared to the public and capacity building trainings were provided for health professionals. More than 30 SOPs and guideline developed on mass gathering, election, safe school reopening, on rational use of PPE. Different Videos has been prepared on doffing and donning, hand washing, chlorine preparation. 385 healthcare workers (HCWs) from all regional Health bureau & treatment centers took comprehensive COVID-19 training for HCWs. Basic IPC training given for HCWs in High risk population group(prisons, geriatrics centers, military camps daycare, IDPs, …), Federal police & Defense Force HCW, Industries park & mega industry safety experts, University food handlers, cleaners & security, social organizations and religious leaders.

Risk Communication and Community Engagement (RCCE)

One of the corner stone of COVID-19 response was risk communication and community engagement. The EPHI and MOH have developed various COVID-19 Prevention Guides and RCCE strategies, daily updates to Media on COVID-19 Situation all 365 days, media scanning and monitoring and different awareness creation messages prepared and shared in different forms. Furthermore, RCCE technical working groups established and relevant experts mobilized like Graphic Art Designers, RCCE, and Media. Audio-video messages developed and aired for the public. Daily press statements developed and press conferences conducted by MoH and EPHI higher officials. Targeted Social and Behavior Change (SBCC) materials developed, translated, printed and distributed to regions and lower level. Besides these about 26,000 health extension workers and their supervisors are trained on COVID-19 response activities using Mobile based training approaches.

Digitalization

District Health Information Software 2 (DHIS2), a free and open source health management data platform, has been used for COVID-19 aggregate data entry and contact tracing, managing laboratory Order/request, admission and referral management, clinical follow up for case management and result dissemination / e-messaging.

Different electronic applications like Health Facility Application, Home based Isolation and care, Traveler Certificate Application, Call center Application, Community House to House Screening Application, Commodity Management Application: DAGU 2.0, an inventory management system), have also been utilized.

Regional Support

Around 284 multidisciplinary experts deployed for response from national to region through contract. From different organization, including MOH, around 1757 multidisciplinary experts participated in covid-19 response at national Public Health Emergency Operations Center level. Different ICT materials including 968 tablets for contact tracing &testing and 12 audio visuals conference device were distributed nationally for all regions.

School Reopening

Guiding documents were developed and cascaded with various school assessment conducted before and after reopening. A total of 214 School assessments were conducted and feedback given. Training of trainers was provided for 250 experts from universities, regional education bureaus and zonal education departments.

Research (Evidence generation)

Various researches have been facilitated by the MOH and EPHI. It includes; The First Few Cases investigation (FFX): An Investigation of a Hundred COVID-19 Cases and Close Contacts in Ethiopia, factors that influence the duration of symptom resolution in COVID-19 patients in Ethiopia, health workers exposure risk assessment and management, community risk perception and Different Cluster & Outbreak investigations in the congregate setting are some of the evidence generation researches conducted in the fiscal year. Furthermore, other 30 different studies are at different stages.

COVID-19 outbreak Projections

Existing COVID-19 forecasting models differ substantially in methodology, assumptions, range of predictions, and quantities estimated.

The ministry has used around **seven models** to forecast the outbreak in Ethiopia up until now. However, currently only two have regular updates, the IHME and EPHI models.

COVID-19 Timeline

Dec. 31, 2019
China alerts WHO to several pneumonia cases of unknown cause

Jan. 21, 2020

WHO confirms human-to-human transmission of the virus

Jan. 27, 2020


PHEOC activated for 2019-nCOV preparedness and IM assigned

Jan. 30, 2020

WHO declares the outbreak a PHEIC

Feb. 07, 2020

Ethiopia starts laboratory test for COVID-19

Feb. 11, 2020

WHO names the novel corona virus: COVID-19

Feb. 14, 2020

Egypt confirms Africa's first case

Dec. 31, 2020

WHO declares the COVID-19 outbreak a PANDEMIC

Mar. 13, 2020

Ethiopia reports the first COVID-19 case

Mar. 15, 2020

8335 toll free hotline upgraded to digital call center

Mar. 16, 2020

Prime Minister of Ethiopia declared closure of schools and mass gatherings.

Mar. 20, 2020

Ethiopian Airlines suspends flight to around 30 countries

Mar. 23, 2020


14-days mandatory quarantine for all travelers arriving in Ethiopia started

Mar. 25, 2020

PM of Ethiopia launched national COVID-19 resource mobilization committee

Mar. 28, 2020


The first recovered patient reported in Ethiopia

Apr. 01, 2020

COVID-19 laboratory testing started in AHRI and NAHDIC

Apr. 05, 2020

The first death reported in Ethiopia

Apr. 08, 2020


Ethiopia declares state of emergency to fight COVID-19

Aug. 29, 2020

General election in Ethiopia postponed due to COVID-19 pandemic

Oct. 26, 2020

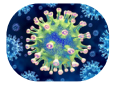
School reopening commenced in Addis Ababa

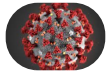
Mar. 07, 2021

Ethiopia received the first 2.2 million doses of COVID-19 vaccine

Mar. 13, 2021

Ethiopia begins COVID-19 vaccine rollout

July 13, 2021

Alpha and Beta SARS-COV-2 variants reported in Ethiopia

Sept. 07, 2021

Delta SARS-COV-2 variant reported in Ethiopia

159
2013 EFY (2020/2021)

Figure 59: COVID-19 related events and major activities timeline

ANNUAL PERFORMANCE REPORT

2013 EFY (2020/2021)