



Expanded Program on Immunization (EPI)

2018 EPI Annual Report

WHO Ethiopia continued to support strengthening the Expanded Program on Immunization in Ethiopia. Working together with the Government at all levels and partners, several achievements were registered since the launching of the EPI program. The routine immunization program that started with six antigens expanded its service by increasing the number of vaccines to 12. WHO Ethiopia's support to the FMOH is aligned with the Government and AFRO priorities. This report highlights the 2018 key achievements and perspectives for 2019.



World Health
Organization

Ethiopia

Expanded Program on Immunization (EPI)

2018

EPI ANNUAL REPORT



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1. INTRODUCTION

1.1. Overview

In 2018, the country was able to expand the immunization service by introducing new vaccines into the country routine immunization program that increased the number of antigens from 10 to 12. During this reporting year, two new vaccines were added into the routine program against Human papilloma virus (HPV) and MCV2 against measles. Application has been also endorsed by ICC for Yellow fever vaccine introduction by this year.

The RED guideline has been also revised and published during this reporting period. The 2018 RED guide takes into consideration a review of best practices and the emerging issues since 2008. These include various global initiatives that provide new resources and renewed focus on targets for sustainability, address inequities between communities and better integration across health programs.

Based on this revised RED guide, WHO supported the microplanning training using the revised RED guideline to 268 EPI FP at different regions. The country was also able to successfully implement the horn of Africa (HoA) circulating virus derived polio (cVDP) response following the technical advisory group (TAG) recommendations.



WHO Ethiopia continued to support strengthening accelerated disease control (ADC) through different interventions including: measles case-based surveillance and outbreak response, measles incidence rate, measles outbreak response vaccination, Maternal Neonatal Tetanus Elimination, Pertussis outbreak, Yellow Fever outbreak and response, new vaccine surveillance and AEFI surveillance.

Moreover, under the VPD laboratory performances and capacity building activities, WHO provided support to the country to strengthen the national polio lab, measles laboratory and the building lab capacity.

1.2. Key 2018 Achievements



2. MAJOR ACTIVITIES AND ACHIEVEMENTS IN 2018

2.1. Coordination and Planning

Expanded Program on Immunization (EPI) is one of the key programs in World Health Organization (WHO) Ethiopia under the Maternal, Child Health and Nutrition (MCHN). WHO provides technical supports to the Federal Ministry of Health (FMOH) of Ethiopia through its staff based in central and regional Offices. WHO also provides direct technical assistances through staff members seconded to the FMOH and Regional Health Bureaus (RHBs). Areas of supports include: Supplementary Immunization Activities (SIAs), data management and overall immunization activities.

Moreover, several consultants including WHO Surveillance Officers and Field Epidemiologists provide technical supports for the implementation of polio eradication strategies in several high risk regions and zones. The field officers also involve in efforts maintaining polio free status of the country thus contributing towards polio free world. WHO Ethiopia's support to the Federal Ministry of Health (FMOH) is aligned with the Government and WHO Africa Regional Office (WHO AFRO) priorities. The country multi-year plan (cMYP), which covers the period 2016-2020, is developed using Global Vaccine Action Plan (GVAP) framework ensuring that all components of the immunization system are sufficiently addressed. It is also aligned with the Health Sector Transformational Plan I (HSTP I).

WHO is an active member of the interagency Coordination Committee which was established in the 90' and presently revising its TOR to be more effective to support the immunization activities in the country. WHO particularly EPI unit of MNCH/N cluster was active in participating in Federal and Regional and Zonal Command Post meetings to coordinate better the conduct of routine and outbreak response Polio SIA at all levels.

WHO was one of the main contributors and organizers of the 2018 Joint Appraisal that was conducted in November 2018 in Addis Ababa Ethiopia. The country office also supported the FMOH by manning various technical working groups such as Monitoring and Evaluation Technical Working group, Logistic Working Group and communication working groups. The implementation progresses and results of the EPI Work plan are monitored at internal weekly meetings and during quarterly review meetings with participation of national and sub-national level staffs, MoH and other EPI partners.

Though it was not regularly conducted, biannually review meetings were also held locally at the regional level. The central EPI team meets weekly to review the weekly roadmap and work plan implementation, and shared with IST and AFRO prior to a weekly teleconferences with IST/AFRO/HQ and global partners. The budget implementation is also reviewed at cluster level on monthly basis.

2.2. EPI coverage



The Ethiopian routine immunization program targets more than 3 million birth cohorts annually with 11 antigens. According to the WHO/Unicef Joint Report (JRF), the national Penta 3 coverage was 95% and MCV1 coverage was 91%. However the, according to WUENIC (WHO, UNICEF Estimate of National Immunization Coverage report and 2018 Penta 3 coverage was 73% and MCV1 coverage was 61%.

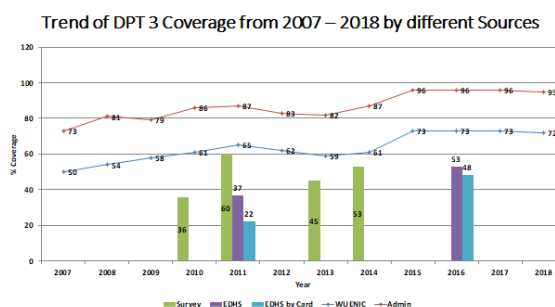


Table 1 Routine immunization coverage (Penta 3 and MCV1) by Regions in 2018

Region	Penta 3	MCV1	Equity	Quality
			Unvaccinated for Penta 3	PI -P3 DOR%
Addis Ababa	135%	124%		2%
Afar	77%	70%		11%
Amhara	95%	91%		4%
Benishangul Gumz	96%	90%		4%
Diredawa	82%	76%		9%
Gambella	77%	63%		4%
Harari	137%	124%		21%
Oromia	98%	89%		9%
SNNPR	90%	85%		5%
Somali	81%	71%		16%
Tigray	85%	80%		5%
National	96%	88%		8%

Regional coverage variation has been observed with of lowest 77% in Afar and Gambella to 100% of the highest Penta 3 coverage in Addis and Harari regions. The national Penta one to three dropout was 8% The country has reported MCV1 coverage ranging from 63% in Gambella up to 100% in Addis Ababa and Harari.

2.3. New vaccine introductions

WHO supported the Ministry of Health (MoH) in writing the proposal for new vaccine introductions (NVIs), supported the coordination with technical working groups (TWGs) & ICC, drafted and printed NVI guidelines, monitored the implementation of NVI and supported the NVI trainings.

2.3.1. HPV Introduction

WHO has supported the MoH for new vaccine introductions including HPV, MCV2 and YF. WHO developed proposal for HPV and MCV2 and provided extended support in the application process, guide line and training manual development, facilitated national level training of trainers for 25 regional EPI officers later cascaded to subnational level, supported coordination between different groups of technical working groups (TWGs) & ICC. National and sub nation level HPV Readiness for the introduction assessed by collecting data from 100 woredas using ODK (Open data kit) platforms and given feed back to RHBs to enhance preparation. HPV dose one was launched on December 3, 2018. HPV dose one targeted 1,226,291 girls age 14 years old and reached and vaccinated 1,179,014.

Region	HPV 1 Target	Vaccinated	%
Addis Ababa	30,442	26,591	87.3
Oromia	482,062	466,578	96.8
SNNP	271,191	264,223	97.4
Tigray	68,283	67,642	99.1
Somali	45,551	42,674	93.7
B/Gumuz	16,344	12,154	74.4
Amhara	288,465	276,402	95.8
Dire Dawa	4,081	3,958	97.0
Harari	2,983	2,863	96.0
Gambella	6,907	6,324	91.6
Afar	9,982	9,605	96.2
Total	1,226,291	1,179,014	96.1



The second dose HPV vaccine targets 1,179,014 girls of age 14 who have been vaccinated for first dose. The HPV vaccine was delivered through a school-based approach and reached the eligible girls in both private and public schools. The out of school girls were also able to access the vaccine from all health facilities of 9 regions and the two city administrations of the country.

2.3.2. MCV2 Introduction

National MCV2 introduction was launched on 11 February 2019 at Wolenchety HC, Bosete Woreda of Oromia Region. The launching was officiated by State Minister, MoH in the presence of Chairperson of Gavi Board, deputy CEO of Global Fund, WHO and UNICEF Representatives, representatives of EPI partners, Aba Geda (Local leaders) and Oromia Regional Health Bureau vice head.

WHO has supported the MCV2 introduction by deploying two national consultants for a period of 15 months, readiness for introduction was assessed from 100 woredas

and feedback given to regions and national technical working groups to enhance activities.



The national level TOT was facilitated and trained 25 EPI focal from all 9 regions and 2 administrative cities then supervised cascaded trainings.

2.3.3. Yellow Fever vaccine introduction

Ethiopian team from WHO and Ethiopian Public Health Institute (EPHI) have attended “Eliminate Yellow Fever Epidemics (EYE) Strategy Kick off Meeting” which was conducted in Abuja, Nigeria, 10-12 April 2018 where the Ethiopia team from EPHI presented update focusing on laboratory and surveillance for YF. The overall objectives of this three day’s meeting were to strengthen and sustain countries’ engagement in eliminating yellow fever epidemics and define specific

implementation plans.

WHO Ethiopia has supported the country in the preparation of document for YF introduction in to RI and PMVC (preventive Mass vaccination campaign) to National Immunization Technical Advisory Group (NITAG) and assisted endorsement of Yellow fever proposal by ICC. Yellow fever (YF) is endemic across 40 countries in America and Africa, despite being easily preventable by a single-dose vaccine. 23

countries at high risk have already introduced YF vaccine into the national routine immunization and they are expected to maintain high coverage. Four countries including Ethiopia are not yet introduced and are expected to introduce YF vaccine into RI program by 2020.



2.4. Capacity Building



WHO has supported in the development of revised RED guide, printing of 22,000 copies of the guide and distributed to all regions. In line with this mobilized 2,5 mil

Birr and technical support to familiarize the RED guide in 7 zones of 4 regions.

WHO has supported In 3 zones of Amhara, 2 zones of Oromia, one zone of SNNPR & Tigray regions trained a total of 478 health workers on immunization in practice which enables the health workers to provide quality services and a total of 298 Woreda EPI officers trained and empowered to plan implement and monitor immunization activities.

Region	Zone	IIP Training	RED Approach training
Amhara	East Gojjam	73	38
Amhara	North Wollo	44	20
Amhara	South Wollo	96	67
SNNPR	Hadiya	93	93
Tigra	Central Zone	56	22
Oromia	North SHoa	60	30
Oromia	Illuababour	56	28
Total		478	298

2.5. PIRI support

WHO supported the country in the Periodic Intensification of Routine Immunization (PIRI) guide development, in selection of PIRI implementation sites and facilitation of trainings conducted at national level.

2.6. CDC-WCO Collaborated Projects

CDC Atlanta in collaboration with WHO Ethiopia implemented two small scale projects namely Afar One Health and Measles five dose study.

2.6.1. Afar One Health Project

Following the KAP assessment of human and animal health services in Afar conducted in 2013: Afar “One Health Approach” project was initiated. The project entailed activities such as formation of Woreda One Health Committee including clan leaders and training of community mobilizers to enhance their engagement, and Capacity building and coordination of human/animal health services including settlement bases Micro-planning engaging GPS technology assisted in some cases. Afar one Health was project was implemented in three woredas; Ada’ar, Dubti and Mille selected from zone One of Afar region.

The general objective of the project was to improve routine immunization coverage by 10 – 20% after implementation of the activities indicated in the recommendation above. A total of 113 public and animal health experts were trained through the implementation and 41 religious leaders, 38 clan leaders and 37 Kebele leaders were sensitized on Afar one Health approach and immunization. Following the capacity building, village based bottom up EPI micro-plan was prepared with the involvement of community representatives and was implemented September 2018 – January 2019.

The final report indicated an average improvement of 13% and 62% in Dubti and Mille woredas, respectively but declined by 1% in Ada’ar woreda since a complete report could not be obtained. From the EPI sessions planned, 79%, 19% and 10% of the fixed, outreach and mobile sessions

were conducted, respectively. The challenges identified for the low session implementation was, the poor utilization of the budgets allocated by RHB at woreda level and the problem with the functionality of the mobile teams.

2.6.2. Measles Five Dose Study

Measles fived dose study project is a joint (FMOH, CDC/Atlanta, WHO and EPHI) intervention study project that examines the benefit of health worker education and different sized vials of measles containing vaccine on the routine measles vaccination coverage in 60 woredas selected from zones of Oromia and Amhara regions. The 60 woredas are selected from West Gojjam zone from Amhara region and East Wellega, Iluababor, Buno Bedelle and Horro Guduru Wellega zones from Oromia region.

Due to unprecedented challenges related to getting Enumeration Area (EA) maps and security situation in in the study areas, the project was delayed from the initial schedule. But the some of the challenges are resolved and we are on preparation to start the baseline survey, which is one of the initial activities to start project implementation.

2.7. Disease surveillance and Response

2.7.1. Polio eradication

Ethiopia continued to implement quality polio eradication activities and as a result, almost five polio free years have passed. Spearhead by the government of Ethiopia, GPEI partners have continued to provide technical and financial supports for maintaining the polio free status of the country.

2.7.1.1. AFP surveillance

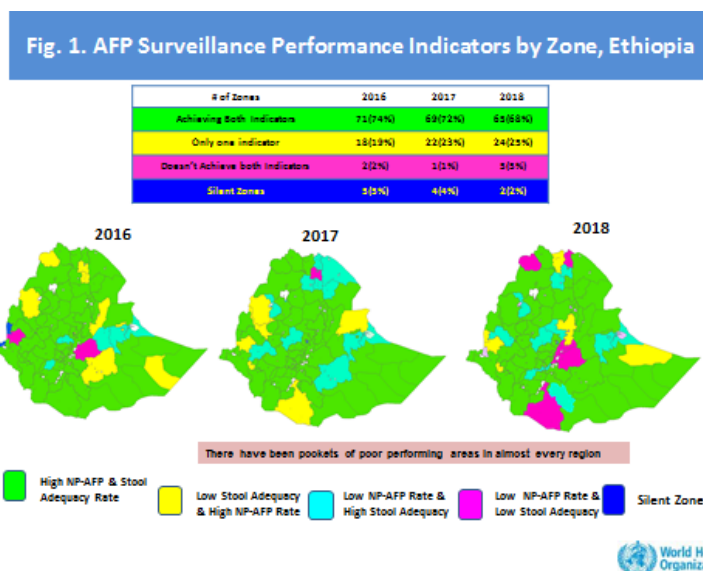
Ethiopia continued to maintain certification standard surveillance indicators in 2018 as well. The national non-polio AFP and stool adequacy rates were achieved with 2.4 non-polio AFP cases per 100,000 population of <15 years of age and 92%, respectively (Table 1).

Table 1: Summary of AFP surveillance Indicators, Ethiopia, 2008 – 2018

Indicators	Target	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NP-AFP rate per 100,000 < 15 Yrs	2.0	2.9	2.20	2.8	2.7	2.9	2.9	3.1	3.1	2.5	2.6	2.3
Stool adequacy	80%	82%	82%	85%	88%	89%	87%	87%	92%	91%	92%	92%
Investigated < 2 days of notification	80%	95%	98%	98%	98%	93%	97%	97%	94%	91%	94%	93%
Specimen arriving at lab within 3 days	80%	99%	99%	99%	98%	99%	99%	97%	98%	98%	98%	99%
Specimen arriving in good condition	90%	99%	100%	88%	91%	91%	82%	79%	80%	85%	92%	88%
Non-polio enterovirus isolation rate	10%	8.3%	10.6%	6.5%	7.6%	4.6%	7.9%	7.0%	3.2%	9.1%	7.2%	7.4%
Suspected Polio Virus Isolation Rate	10%	3.3%	3.8%	3.8%	2.2%	1.2	7.3	4.2%	4.5%	3.6%	1.0%	1.2%
Timely Lab result within 14 days of receipt	80%	88.5 %	90%	99%	83%	76%	77%	79%	90%	87%	90%	91%

All but Hareri regions, the first administrative levels of Ethiopia, have attained the two main AFP surveillance indicators.

Sixty-eight (68%) of the 100 zones have met both non-polio and stool adequacy rates in 2018 (Fig.1).



2.7.1.2. Environmental surveillance

Started with three sites in February 2017, four environmental surveillance sites were operational in Ethiopia as of December 31, 2018. Dire Dawa has started sample collection on November 21, 2018 following AFRO's external review for expansion made in May 2018.

2.7.1.3. Poliovirus Containment of type 2

A total of 57,193 mOPV2 vials that were used for the 2018 response were retrieved and destroyed at national level. There were 173 vials that were missed and not accounted for. Independent validation is planned in 2019 to verify the retrieval and complete destruction of these vials.

2.7.1.4. Polio Free Status and Transition

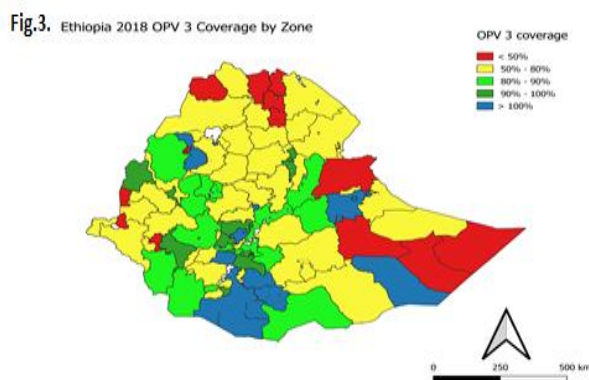
Polio committees supported polio eradication through independent quarterly monitoring of the activities, advocacy visits and progresses in view of maintaining the country's polio free status. The national certification committee has also prepared and submitted the 2018 annual post document acceptance report to the African Polio Certification Commission (ARCC). Polio transition activities were also implemented through capacity building of government surveillance officers.

2.7.1.5. Immunization

2.7.1.5.1. Routine Polio Vaccination

Ethiopia reported relatively lower administrative OPV3 coverage in 2018 compared to 2017. According to JRF Report of 2018, the national OPV-3 coverage is 80% while the 2017 coverage was 92%. The coverage by region ranges from 44% in Tigray to 136% in Addis Ababa. Nationally compiled IPV data was available in 2018 for the first time and performance reports revealed much lower coverage in every region compared to OPV3. Only 66% of infants have received IPV at national level while <50% of the infants were vaccinated with IPV in Tigray, Somali and Hareri .However, data quality issues, denominator problems and discrepancy among zones and woredas within a region are persisting problems for both antigens.

The northeastern, eastern and southeastern parts of the country, mostly inhabited by pastoralist communities, have sub-optimal routine immunization coverage this year (Fig. 3). The coverage in 2018 has even declined compared to 2017 which is mainly due to the various health emergencies and internal displacement of populations in the country.



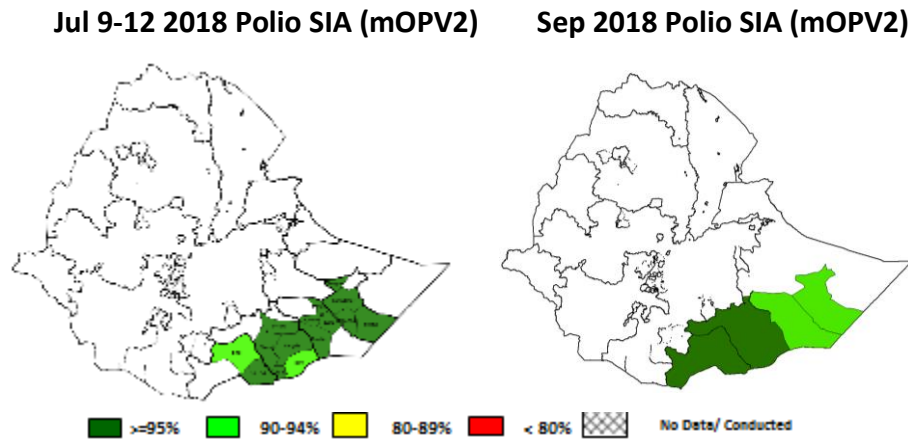
(Source: JRF 2018, Ethiopia)

2.7.1.5.2. Polio SIA

There was no preventive polio SIA conducted in 2018 as those initially planned in March, October and November were postponed due to competing priorities. However, two rounds of mOPV2 campaigns were implemented in five (Afer, Dawa, Liben, Korahe and Shebele) zones of Somali Region synchronized with Somalia and Kenya in response to the cVDPV2 outbreak in these two Horn of Africa countries. Under-five children in the host communities, the internally displaced population and refugees in five camps located in Liben Zone were targeted for this response. Polio SNID coverage was optimal and no zone has SIA coverage below 90% (Table 4).

Independent monitoring was conducted in both rounds and the findings indicated that the coverage is more or less similar to the administrative findings. Except in Korahe and Shebele, more than 95% of physically checked children were finger-marked during each of the two rounds. The proportion of finger-marked children was 92% and 93% respectively in Korahe and Shebele during round two.

Fig. 4: Independent Monitoring Coverage by Zone, Polio SIAs, Ethiopia, 2018



The LQAS conducted by Jijiga University revealed that 28 of the 34 lots were accepted in both rounds.

2.7.2. Accelerated Disease Control

2.7.2.1 Measles case-based surveillance and outbreak response

Measles case based surveillance has been ongoing integrated with polio and neonatal surveillance. All but one surveillance indicators were met in 2018 (Table ___).

Table: Measles Surveillance Quality Indicators, Ethiopia, 2015-2018

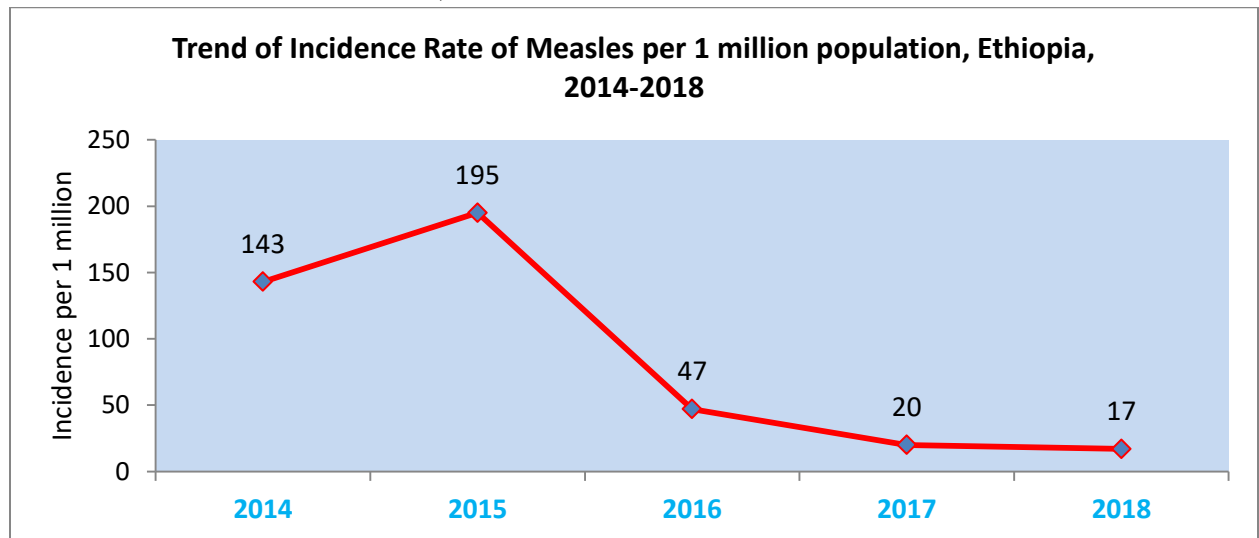
Indicators	Target	2015	2016	2017	2018
Annualized rate of investigation of suspected measles cases (/100,000)	≥ 2	4.8	3.2	3.1	3.9
Annualized non-measles febrile rash rate	≥ 2	2.5	2.0	2.5	3.3
Proportion of woredas with ≥ 1 case per 100,000 with a blood specimen (%)	≥ 80	76	63	69	72
Proportion of reported measles cases with blood specimen (%)	≥ 80	42	93.5	100	100

All regions except Afar, Tigray and Somali have achieved the minimum measles surveillance indicators during the year.

2.7.2.2 Measles Incidence Rate

The measles incidence has shown a declining trend particularly after 2015. However, the incidence is still higher in younger age group.

National measles incidence rate, 2014-2018



2.7.2.3 Measles outbreak response vaccination

A total of 63 measles outbreak episodes were reported and investigated in 2018, a relative decline compared to previous years. Majority of the outbreaks were detected in Somali (24), Oromia (14) and Amhara (11) regions. Mass vaccination campaigns were conducted in Somali and SNNP regions in response to confirmed outbreaks of measles. Preventive mass vaccination was also implemented in IDP camps of Fafan, Gedo and West Guji in August 2018 and host community found around the IDP camps and over 1.1 million children (540,896) in Gedo and (593,528) in West Guji zones respectively were reached. Administrative coverage reports from these areas showed higher coverage. The vaccination was given to protect those children as they are at high risk for the spread of communicable disease.

The World Health Organization emergency and EPI team provided technical support to this campaign in coordination, preparatory activities including training, as well as in the implementation phase including monitoring and supervision of the overall activities.

The United Nations Central Emergency Response Fund (CERF) allocated budget to WHO and UNICEF towards supporting this preventive measles campaign. The Gedo and West Guji zones

are located in Southern Nations, Nationalities and Peoples (SNNP) and Oromia regions respectively.

Measles outbreak response campaign was also conducted in a refugee camp, IDPs, and other high risk districts of Somali region. The targets were 233,666 children total with 84,660 under five (0 to 59 months) and 149,006 from 5 to 15 years old from four woredas (Mubarek, Moyale, Hudet and Kededuma) of Dawa zone and two woredas (Boqolmayo, and Kekasuftu) of Liban zone that are among the 11 administrative zones of Somali regional state of Ethiopia. This campaign reached seven kebeles in Jima, Bale, Burgab, Tuladaye, Ketama, Aliofe and Wargadud with a total of 97% coverage.

Moreover, similar campaign was conducted in two IDPs found in Kolaji kebele of Babile woreda in Fafan zone. Accordingly, from the total estimated 57,125 target groups, 54,967(96%) were received measles vaccine, of which 10,254 were children between 6-59 months while 46,871 were between 5-30 years of age. Post campaign RCS was conducted in 2 IDPs where missed children were vaccinated with coverage of 97%.

2.7.2.4 Maternal Neonatal Tetanus Elimination

A total of 20 confirmed cases of neonatal tetanus were reported throughout the country. However, cases are underreported and responded.

2.7.2.5 Pertussis Outbreak

Two confirmed outbreaks with nearly 2,000 cases were reported and responded in 2018 from Amhara and SNNPR regions. Age profile of reported cases revealed that two-thirds of the cases were under-five children and under-vaccinated. The common features of the affected areas are that pertussis outbreaks occurred in pockets of chronically missed communities.

2.7.2.6 Yellow Fever Outbreak and response

There was a yellow fever outbreak between August and October 2018 in two woredas of Wolayta Zone of SNNPR that resulted in 35 cases and 10 deaths. Mass vaccination was

implemented covering the whole population over the age of one year and more than 1.3 million high risk populations vaccinated against yellow fever. Both administration and post campaign survey results revealed good coverage.

The vaccination campaign uses doses from the global emergency Yellow Fever vaccine stockpile managed by the International Coordination Group on Vaccine Provision (ICG) and funded by Gavi, the Vaccine Alliance. The first suspected cases of yellow fever in Ethiopia were detected at the end of September 2018.

The response to the outbreak in Ethiopia is part of a global Strategy to Eliminate Yellow Fever Epidemics (EYE) by 2026. With the support from WHO, Gavi, UNICEF, and more than fifty partners, the country will expand its routine childhood immunization programme, improve its laboratory capacity and roll-out control measures to prevent the spread of the disease. Ethiopia is a priority country for the EYE Strategy, which supports 39 other at-risk countries, 26 of them in Africa. As part of the EYE Strategy, more than 80 million people are expected to be protected from yellow fever through nation-wide preventive mass vaccination campaigns over the next few years.

2.7.2.7 New Vaccine Surveillance

Rota and other enteropathogenic diarrhea surveillance has continued to be implemented in three major hospitals in Addis Ababa in collaboration with FMOH and EPHI to monitor the epidemiological impact after rotavirus vaccine introduction. The country is also implementing paediatric bacterial meningitis surveillance in three sentinel hospitals of Addis Ababa and Amhara. Major surveillance indicators were maintained during the year. Congenital Rubella Surveillance has also been implemented in three referral hospitals in the country. However, the case detection and reporting is continued to be challenging and require further revitalization.

2.7.2.8 AEFI surveillance

A total of 53 AEFI cases were reported and classified by the national AEFI committee. All these cases were detected during measles response SIAs and HPV vaccination campaign, indicating that getting AEFI from routine vaccination is still a challenge.

2.7.3. VPD laboratory Performances and Capacity Building

2.7.3.1 The National Polio Lab

The National Polio Laboratory was fully accredited with high scores for virus isolation, ITD and environmental surveillance by AFRO for both stool and environmental testing. The lab has processed a total of 2,796 samples from AFP cases (2,119), selected contacts (677) and 78 sewage samples from environmental surveillance sites were processed and tested during 2018.

2.7.3.2 Measles Laboratory

The three measles Laboratories of the country processed 2,714 suspected samples collected from all regions. Results showed that 14.6% were positive for measles IgM while 28.5% of the measles IgM negative samples subjected for rubella testing were positive for rubella. Results were released within seven days for 92.1% of the samples. The proficiency panel test was received from Global Measles reference Lab Australia, and the laboratory scored 100% both for measles and Rubella.

2.7.3.3 Lab Capacity Building Activities

Three measles laboratory professional were trained on new measles kits in South Africa's Measles Regional Reference Laboratory. Supportive supervision visit was conducted at Hawassa and Bahirdar sub national measles laboratories. Yellow fever laboratory at EPHI was assessed by experts through GAVI support. The gaps in the laboratory were identified and the report submitted to AFRO WHO. With support from WHO and UNOPS, the Mobile BSL-3 Laboratory has also become functional in 2018 to strengthen the laboratory detection of highly infectious pathogens under public health emergency management.

Based on accreditation visit recommendation Cell culture and data management training was conducted for National Polio laboratory staff. Training on preventive maintenance was also conducted for 8 medical laboratory engineers. Another training focusing on laboratory management, biosafety and biosecurity was conducted for 10 researchers from virology, bacteriology and zoonosis laboratories.

The supply chain management was also supported through procurement, importation and distribution of key supplies and reagents for measles, rubella, polio, rota, influenza and bacteriology laboratories.

2.8. HoA's cVDP outbreak response

Ethiopia joined Somali and Kenya for the horn of Africa polio outbreak response. The Federal Ministry of Health announced the declaration of polio emergency response for Somali region following the detection of circulating virus derived polio virus (cVDPV2) in Nairobi, Kenya and Mogadishu, Somalia on 6th of June 2018.



As per the recommendation of the Technical Advisory Group (TAG), the synchronized campaigns conducted in 42 districts of five zones in Somali region in Ethiopia. Though the source of this circulating Vaccine derived polio virus (cVDPV) detection was not related to human and is from environmental surveillance, The continuous movement of people in the cross

boarder exposes the HoA countries to high risk for easily importation and very rapidly transmission of polio virus and this detection of virus in the neighbor countries alarmed Kenya, Somalia and Ethiopia to act accordingly.

Accordingly, Ethiopia conducted two rounds of monovalent oral polio vaccine type 2 (mOPV2) and one round of bOPV campaign. The first round mOPV2 campaign in Somali region of Ethiopia conducted from 9 -12, July 2018 in 42 districts of the five zones (Korahey, Afder, Shabele, Liben and Dawa) of Ethio Somali region bordering with Kenya and Somalia . About half million (A total of 478,833 host and 34,092 refugee) children whose age is 0-59 months were targeted for the 1st round mOPV2 campaign.

The WHO Country Office deployed 12 staff from the central team and repurposed some field staff from other zones, in addition to the Somali regional office team based in the respective zones, and regions, to support this campaign.

Ethiopia conducted the second round mOPV2 campaign in Somali region of Ethiopia from 23 - 25, September, 2018 in 42 districts of the five zones (Korahey, Afder, Shabele, Liben and Dawa) of Ethio Somali region bordering with Kenya and Somalia including 14 cross boarder and five internally displaced people (IDPs) sites and refugees. A total of 478,833 host and 34,092 refugee children whose age is 0-59 months were targeted for this mOPV2 campaign.

The bivalent oral polio vaccine (bOPV) campaign will be followed targeting high risk areas which covers 19% of the total under five children found in high risk areas from Oromia, Gambella and Somali regions including the refugee camps found in these respective regions.

2.9. Monitoring and evaluation

Integrated Supportive Supervision (ISS)

WHO field surveillance and immunization officers, including 3 international STOP officers, supported the PHEM system and strengthening of the national routine immunization program by

conducting integrated supportive supervision visits in collaboration with their respective regional, zonal, and woreda PHEM/EPI officers. In 2018, 6,623 integrated supportive supervision (ISS) visits were conducted in 3,020 health facilities, 1,292 of which were high priority facilities.

Data Quality Self-Assessments (DQS)

A total of 274 immunization officers from various woredas, zones, and regional levels were trained on how to conduct data quality self-assessments (DQS) in 3 regions and 2 city administrations.

Promoting GIS-based technological innovations

At the 71st World Health Assembly in May 2018, 16 countries, including Ethiopia, drafted a digital health resolution which was adopted by the decision making body. Under the resolution, WHO agreed to lead efforts in supporting countries in the identification of digital health solutions to complement and enhance existing health service delivery models and strengthen integration of systems. In August 2018, the 67th Session of the Regional Committee of Ministers of Health was held in Victoria Falls, Zimbabwe. At this meeting the AFRO regional office committed to providing technical support for GIS-based technological innovations in an effort to rapidly strengthen surveillance.

A GIS center has been established in the AFRO regional office since Feb 2017 to ensure technological innovations are being used by countries in the region for monitoring program activities such as integrated supportive supervision (ISS). In line with these efforts, the WCO trained EPI program staff from the Ministry of Health, surveillance officers from the Ethiopian Public Health Institute's Public Health Emergency Management (PHEM) Center, and core immunization partners, including Core Group, on the technological innovations available in the African Regional Office to support the country with the digitalization of key program activities, such as ISS, and with real-time surveillance monitoring. The participants were trained on: the installation and use of the ODK platform for entering and analyzing data collected during ISS visits, ISS checklist development, and data analysis methods using advanced features of Microsoft EXCEL and QGIS

Accountability Framework

An accountability framework is in place to monitor staff and non---staff performance based on key deliverables. A monitoring dashboard was devised in 2014 and quarterly feedback instituted on implementation of expected deliverables.

A two days accountability framework implementation review meeting was conducted from 25-26 April 2018. A team from WHO Internal Support Team for Eastern and Southern Africa (IST/ESA), namely Dr Sadiq Abubaker, Monitoring and Evaluation Officer and Mr Isah Mohammed Bello, Data Manager came to facilitate this meeting. The objective of the accountability framework meeting was to evaluate and review utilization of the ODK platform for Integrated Supportive Supervision (ISS) visits by WHO Surveillance Field Officers and validate the data entered. As part of the review meeting, ISS data collection form was reviewed and modified based on input from field officers and additional data collection forms for AFP validation and 60 day follow up were reviewed and adapted for the country.

The half day of this workshop was dedicated to conduct refresher training on the AF which was facilitated by the team from IST and the WCO. During this two days' workshop, the accountability performance of the last two quarter has been presented and discussed and issues rose regarding the KPI tools and validation of data were addressed by the facilitators and finally, the recommendation was given after the consensus reached.

Independent monitoring (IM) and Lot Quality Assurance survey (LQs)

WHO supported the independent monitoring (IM) and lot quality assurance survey (LQs) activities implementation for all SIAs conducted in 2018. The IM and LQAs was done by independent group surveyors. For all SIAs done in Somali region, the direct supervision of the IM and LQAs was done by WHO in collaboration with Jijjiga University. Mop up activities were also conducted in the lots that failed to pass from LQs result. Very close attention was also given during the micro-planning and supervision of the next campaigns using the gaps identified from these monitoring results.

2.10. Data quality improvement



WHO recruited new staff (Data Quality Improvement Officer) at national level to act on the improvement of the immunization data quality with the support of GAVI. This was initiated aiming at:

- Identifying the major strengths and challenges of a country's immunization information system and data quality issues
- Develop and prioritize actionable recommendations based on the causes
- Develop strategic and annual immunization data quality improvement plan (DQIP)

The induction meeting was conducted to the new WHO DIO from Ethiopia and other 10 African countries in Brazzaville Congo, 13-16 November 2018.

The annual data quality improvement activities plan for 2019 developed and shared to WHO/AFRO mainly focusing on to conduct lower level system assessment and data field review, desk review of the EPI data and to develop DQIP at national level and monitor the performances of the recommended activities to address the data quality issues in the country.

2.11. Advocacy and Communication

WHO supported the advocacy and social mobilization activities including the high level advocacy visit, African Vaccination Week implementation at national and regional level, the advocacy and sensitization activities for new vaccine introductions including HPV and Measles second dose which includes media orientation training and stakeholders sensitization meeting; as well as the commemoration of World Polio Day.

In addition to this, the communications part Training of Training (TOT) was supported technically at national and regional level during new vaccine introduction and SIA implementations.

The high level advocacy visit which conducted to strengthen polio surveillance was organized and accompanied by WHO. This high level advocacy visit was led by the chairpersons of polio committees for the NPEC, NCC and NTPC was aimed at strengthening the Acute Flaccid Polio (AFP) surveillance. The advocacy team conducted the visit from 20-21 June 2018 in Oromia and Addis Ababa Regional Health Bureaus and met and discussed with the respective regional health bureau (RHB) heads, as well as the EPI and PHEM focal persons.

The Federal Ministry of Health with the support of World Health Organization conducted a national HPV vaccination sensitization workshop for stakeholders as part of preparation for HPV introduction in to the routine immunization schedule of the country. The sensitization meeting which was held in Adama from August 27-28, 2018 was aimed to promote the HPV introduction.

The Federal Ministry of Health organized advocacy visit where partners including WHO took part to the main stakeholders for HPV introduction including Ministry of Women and child Affair and Ministry of Education based in Addis Ababa and met with the two respective state ministers. The advocacy visits were conducted at Federal level to get the commitment of the bureau at higher level and coordinate the effort through the existing structures found under these minister offices. Moreover, the advocacy visit has been also conducted to the office of former first lady who was the goodwill ambassador for cancer and HIV.

Awareness creation key message were also prepared by the communication working groups for all new vaccine introductions, SIAs conducted during the year. The key messages were prepared for TV and Radio spots, brochure, poster, goodwill ambassador, the EPI managers, social mobilizers and for spokesperson.

Ethiopia celebrated the World Polio Day (WPD) for the 6th time on 24th October 2018. This year world polio day was celebrated while the Federal Ministry of health held its 20th annual review meeting (ARM) in Mekele city of Tigray region. The theme for 2018 WPD celebration was “Bold step to end polio”.

3. OTHER SUPPORTS

In 2018, WHO also supported technically the FMOH in the following activities

- ✓ Annual RI vaccine forecasted for 2019
- ✓ Measles outbreak response immunization campaign conducted
- ✓ Afar One Health (AOH) project supported and completed
- ✓ Supported the Periodic Intensification of RI (PIRI) implementation
- ✓ Supported NITAG activities and polio committees (NPEC, NTF)
- ✓ Government staff supported for abroad training and workshop

Government staff supported for abroad training and workshops

Workshop/Meeting held abroad	# of Gov't staff attended	# of WHO staff attended	Event Venue	Organization/ Association
Technical support to conduct polio outbreak simulation exercise		1	Namibia	
4th Meeting of the steering committee of the AVEREF	1		Maputo, Mozambique	FMHACA
WHO/AFRO training on integrated surveillance of foodborne diseases and antimicrobial resistance	2		Nairobi, Kenya	EPHI
EPI Managers' Meeting	6	4	Kigali, Rwanda	EPHI and RHBs
Annual Joint Reporting Form (JRF) peer review and immunization data analysis workshop	2	1	Harare, Zimbabwe	MoH
Participation in the Eliminate Yellow Fever Epidemics (EYE) strategy kick off meeting	2	1	Abuja, Nigeria	EPHI
Workshop to support countries to prepare measles and rubella GAVI applications	1	1	Harare, Zimbabwe	MoH
Global resource mobilization & financial management		1	Geneva, Swizerland	

workshop				
Invitation to Horn of Africa Technical Advisory Group Meeting & Capacity Building of Country Team	3	4	Nairobi, Kenya	EPHI, MoH, Somali RHB
Inter-country capacity building workshop on the revised RED approach	1	2	Nairobi, Kenya	MoH
Technical support to Kenya during the comprehensive EPI Review		2	Nairobi, Kenya	
Horn of Africa response synchronized cross border planning meeting		4	kenya	
Regional training of key stakeholders on AEFI surveillance	2	2	Maseru, Lesotho	FMHACA
Infectious substance shipping training ISST	0		Dar es Saalam, Tanzania	Nomination not sent from EPHI
RITAG meeting	1		kigali	MoH
Global Immunization meeting		1	Kigali, Rwanda	
WHO training workshop on quality management and biosafety for national influenza centres			Siena, Italy	Nomination not sent from EPHI
Horn of Africa Outbreak technical review meeting		3	Nairobi, Kenya	
Invitation to a Regional Workshop on MNT Elimination	1	1	Nairobi, Kenya	MoH
Eliminate Yellow Fever Epidemics (EYE) annual partners meeting		1	Dakar, Senegal	
Minister of Health Joint Launching of polio campaign	1		Garissa, Kenya	MoH
Measles/rubella laboratory diagnosis training	1	2	Johannesburg, South Africa	
AFRO Programme management training workshop		1	Brazzaville, Congo	
15th annual meeting on surveillance, preparedness and response to meningitis outbreak in Africa	1		Dakar, Senegal	MoH
GIS and information visualization training	2	2	Pretoria, South Africa	MoH
Induction training of Data Improvement Officers		1	Brazzaville, Congo	
VPD surveillance stakeholders' consultative workshop		1	Kigali, Rwanda	
HoA Coordination and TAG Group meeting	3	2	Nairobi, Kenya	MoH

4. PERSPECTIVES FOR 2019

- Devising strategies to increase universal immunization coverage and fully address inequity among regions/zones/districts
- Support YF vaccine introduction application
- Expand and sustain cold chain system and quality vaccine management/supported implementation of EVM
- Improve EPI data quality
- Continue supporting the preparation activities for introduction of new vaccines (YF, HepB BD)
- Support national and regions technical assistance, capacity building and training for implementation of routine EPI, including RED, PIRI, QDS, IIP, MLM, and monitoring and evaluation.
- Sustain elimination status of NNT
- Advocate for introduction of school Td.
- Implement measles five dose vial study
- Support national and regions with technical assistance, capacity building and training for implementation of polio SIAs, including planning, preparation, intra-campaign, and post campaign monitoring and evaluation.
- Sustain polio free status
- Support Measles SIA and establishment of Measles elimination committee
- Maintain new vaccines achieving surveillance indicators (AFP, Measles, new vaccines, and laboratory support)
- Support FMOH in conducting assessments as required

5. CONCLUSIONS AND RECOMMENDATIONS

Generally, as evidences shows from the administrative reports and surveys, the EPI in Ethiopia showed progressive improvement in the past years. However, further intensified efforts are

required to increase EPI coverage and ultimately prevent vaccine preventable disease outbreaks and related morbidity and mortality in the country.

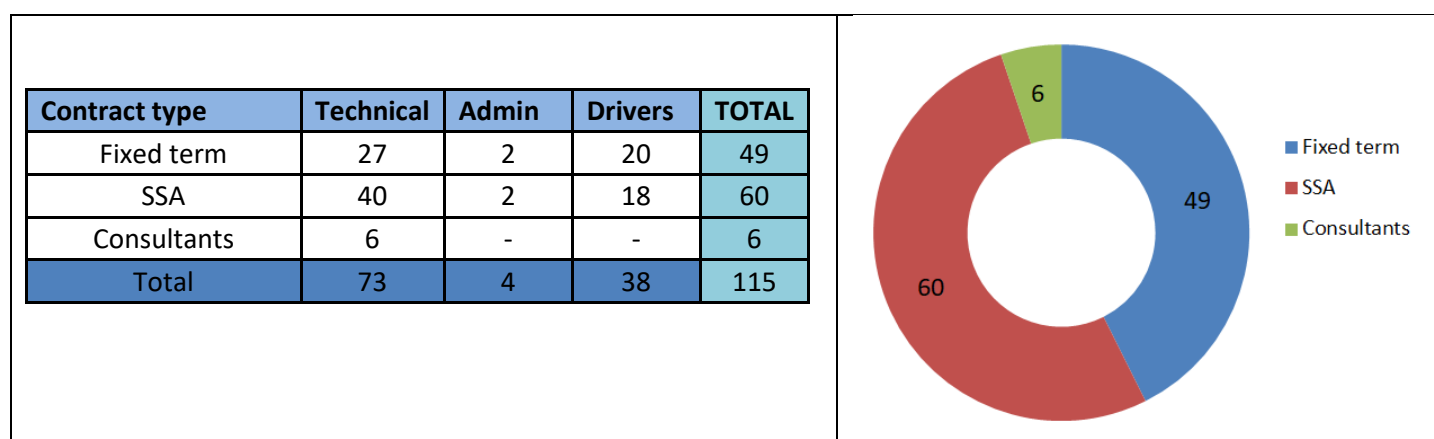
More area specific/ population targeted strategies are required to increase coverage, reduce vaccination dropout rate, and decrease gaps in coverage between regions and districts. Tailored actions are required in areas/regions with consistently low coverage. Actions are also required to improve data quality so as to ensure accuracy of EPI data and information generation for action. In 2019, WHO will focus mainly in the four big regions which contribute more to high number of unimmunized children.

6. ADMINISTRATION AND FINANCIAL REPORT

Human Resource

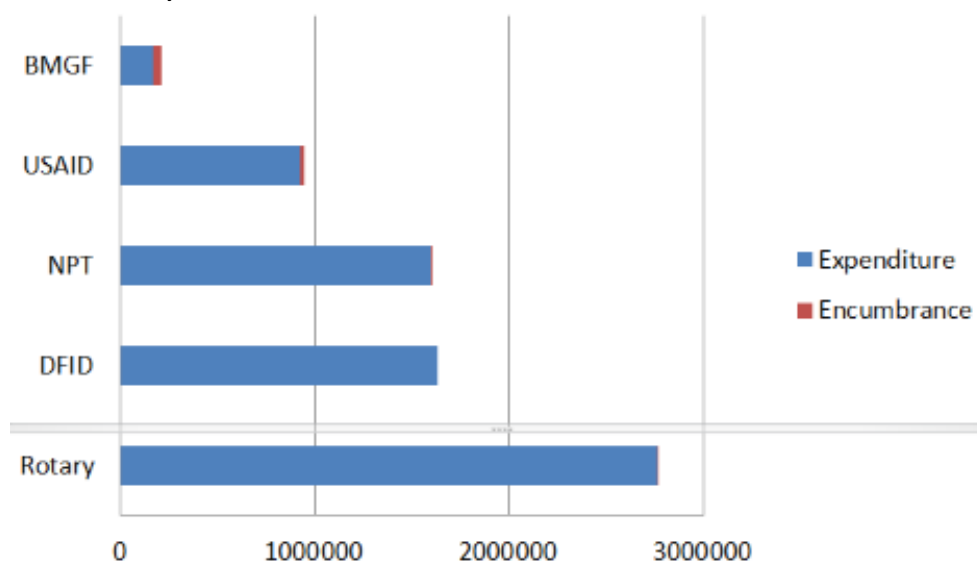
The WHO EPI staff as of June 2018 was 115, of which (49) are fixed term staffs. The rest (60) are SSAs and (6) consultants and the large number of SSAs/consultants are in Somali region deployed while surge team for polio outbreak response established.

The following table shows EPI staff as of December 2018.



Financial Management

I. Polio Eradication budget encumbrance and expenditure by donors in 2018 (Jan-Dec 2018)



II. Donors for Routine Immunization and other emergency response

The Gavi Alliance and CDC are the major donors for the routine immunization program among others. WHO also mobilized resource from UN to respond for emergency events.

We would like to thank the below donors / funding source on Behalf of Ethiopian Children who are benefited from this immunization program.

BMGF	Bill & Melinda Gates Foundation
USAID	United States Agency for International Development
NPT	National Philanthropic Trust
DFID	The Department for International Development
ROTARY	Rotary International
CERF	The United Nations' Central Emergency Response Fund
UNFIP	United Nations Fund for International Partnership
NORAD	Norway Norwegian Agency for Development Cooperation
CDC	Centers for Disease Control and Prevention
Gavi	Global Vaccine Alliance



Address:

World Health Organization, Country Office, Ethiopia
UNECA Compound, Zambezi building
P.O. Box 3069
Addis Ababa, Ethiopia
Tel.+251 115 5534777/5531550
Fax.+251 11 5514037
E-mail: afwcoet@who.int
www.who.org

