



Highlights of the week

Surveillance Completeness Rate: Nationally, the proportion of health facilities that reported surveillance data was 94.2% which is above the minimum requirement (80%).

Surveillance Timeliness Rate: Nationwide, the proportion of health facilities that reported the surveillance data timely was above the minimum requirement i.e. 93%.

Malaria: A total of 107,915 febrile cases were suspected for malaria and tested either by microscopy or RDT in the week. Of these cases, 14.4% (15,589) were treated for malaria. As compared to last week, there was 7.9% (1,139 cases) increment.

Severe Acute Malnutrition: A total of 4,557 cases with three deaths were reported with decrement of 5.5% (239 cases) as compared to last week.

Measles: A total of 200 cases were reported and measles suspected outbreak threshold was surpassed in twenty four woredas as of the week.

Meningitis: A total of 53 suspected meningitis cases with no death were reported.

Anthrax: A total of 38 suspected anthrax cases with one death was reported during the week.

Rabies Exposure: A total of 97 exposure cases without deaths were reported which was 1% (1 exposure cases) lower than the last week.

Maternal Death: A total of 28 maternal deaths were reported from 24 reporting sites.

Zero Reports: Zero suspected cases of avian human influenza, drancunculiasis, pandemic influenza, small pox, hemorrhagic fever, SARS and yellow fever were reported during the week.

Acute Watery Diarrhea Outbreak: Acute watery diarrhea outbreak is ongoing in Afar Region and no case was reported during the week.

Global Situation: There is ongoing EVD outbreak in Democratic Republic of Congo.

Training on Anthrax Surveillance and Sample Collection: Training was conducted in Bishoftu from May 16-18, 2018.

MPDSR Document Preparation: Workshop was conducted in Adama from May 22-24, 2018.

EOC Training Material Preparation: Workshop was conducted in Bishoftu from May 23-25, 2018.



I. Introduction

This Epidemiological Bulletin serves to provide key information on public health emergency management activities, and summarizes surveillance data and performance on epidemic prone diseases and other public health emergencies. The bulletin mainly includes surveillance data of week 19 of 2018 and daily phone communication, line list reports of outbreaks for week 20 of 2018. It highlights the surveillance completeness and timeliness across the regions, trends of diseases under surveillance, cluster of cases and events, ongoing outbreaks and responses undertaken at all levels in Ethiopia and different activities. The numbers of disease specific cases indicated in this issue of bulletin are subject to change due to on-going receiving late weekly surveillance data and retrospective verification of data from outbreak areas.

II. National Public Health Surveillance Data Summary

Table 1: Comparison of surveillance data by week, week 18 and 19, 2018, Ethiopia.

Indicators/diseases/conditions	2018		
	Week 18	Week 19	% Change
Percent of Health Facility reported	94.0%	94.2%	0.2
Percent of Health Facility reported timely	89.0%	92.7%	4.2
Total Malaria Confirmed and Clinical	14,450	15,589	7.9
Typhoid fever	23,810	25,259	6.1
Epidemic Typhus	9,782	11,226	14.8
Dysentery	6,320	6,820	7.9
Severe Acute Malnutrition	4318	4557	5.5
Suspected Measles	109	200	83.5
Rabies exposure	98	97	-1.0
Suspected Meningitis	59	53	-10.2
Relapsing Fever	53	36	-32.1
Suspected Anthrax	19	38	100.0
Maternal Death	23	28	21.7
Acute Flaccid Paralysis	13	6	-53.8
Acute Watery Diarrhea	0	0	0.0
Neonatal Tetanus	0	1	0.0
Avian Human Influenza	0	0	0.0
Polio	0	0	0.0
Dracunculiasis/Guinea worm	0	0	0.0
Pandemic Influenza	0	0	0.0
SARS	0	0	0.0
Small pox	0	0	0.0
Yellow Fever	0	0	0.0
Viral hemorrhagic fever	0	0	0.0

III. Public Health Surveillance Reporting Completeness and Timeliness Rates

A. Public Health Surveillance Reporting Completeness Rate

The national surveillance completeness rate was 94.2% in the week which is above the minimum requirement (80%) and all regions except Somali Region (74%) had achieved above the minimum requirement. (Fig 1).

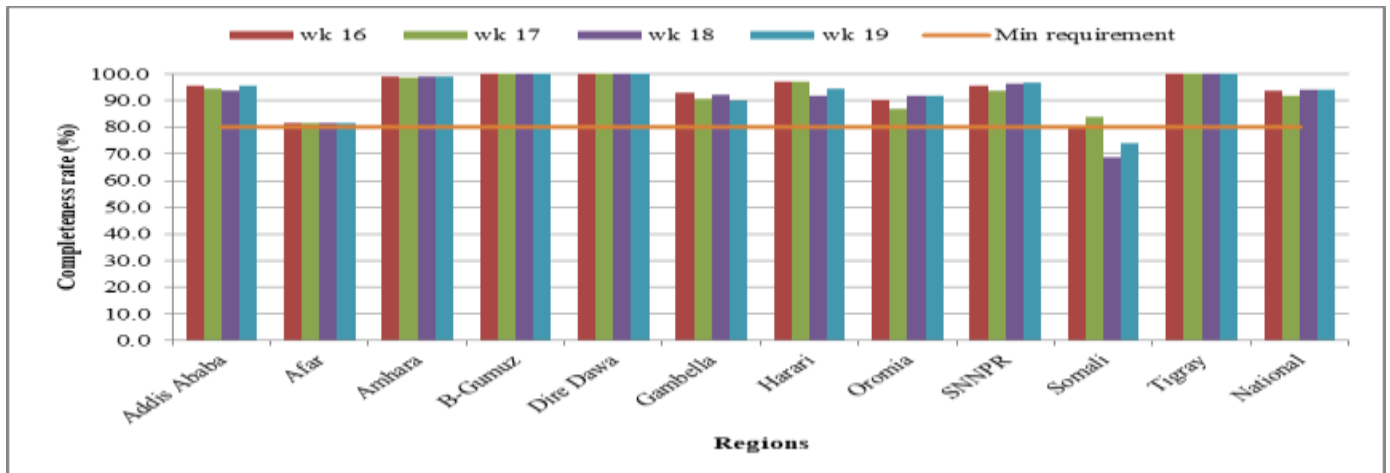


Figure 1: Surveillance data completeness rate by regions, week 16-19, 2018, Ethiopia.

B. Public Health Surveillance Reporting Timeliness Rate

During the week the national surveillance data reporting timeliness rate was 93% which is above the minimum requirement and all regions except Afar Region (0.0%) and Somali Region (74%) had achieved above the minimum requirement, 80%.

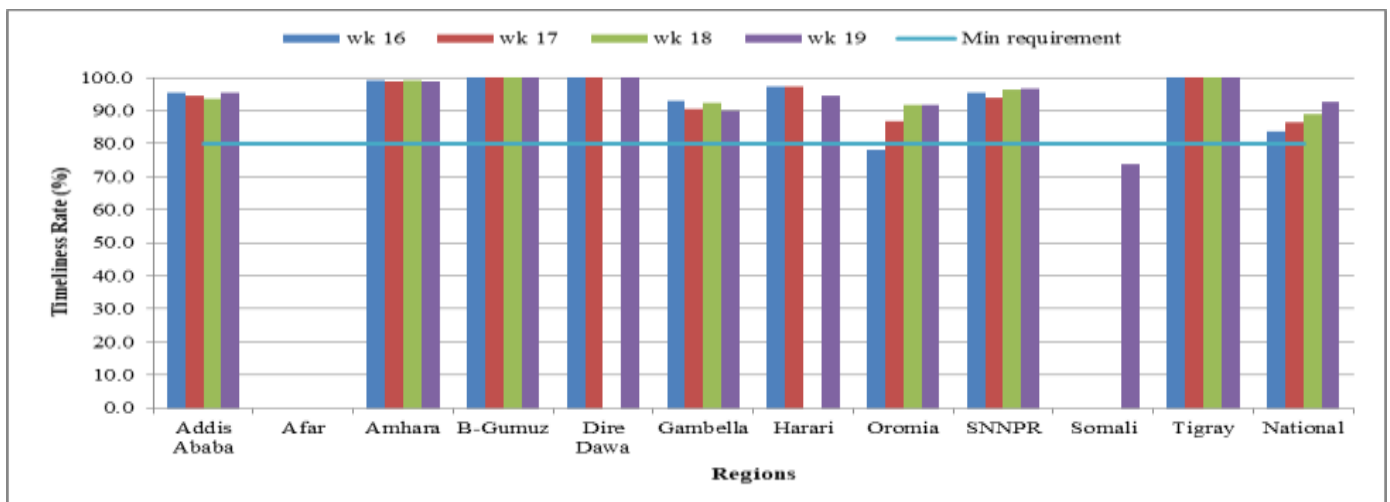


Figure 2: Surveillance data Timeliness rate by regions, week 16-19, 2018, Ethiopia.



IV. Diseases/Conditions under Surveillance Updates

1. Malaria

During the week a total of 107,915 health facilities visitors were suspected and examined for malaria of which 14.4% (15,589) cases were treated as malaria which was 7.9% (1,139 cases) higher than the last week. Plasmodium falciparum contributes the highest portion of the cases reported during the week, 75.2% (11,090 cases) of the cases nationally and 93.7%, 85.9% and 84.2% in Gambella, Benishangul-Gumuz and Somali Regions respectively. The number of cases reported in 2018 is still lower than the number of cases reported in the last two years.

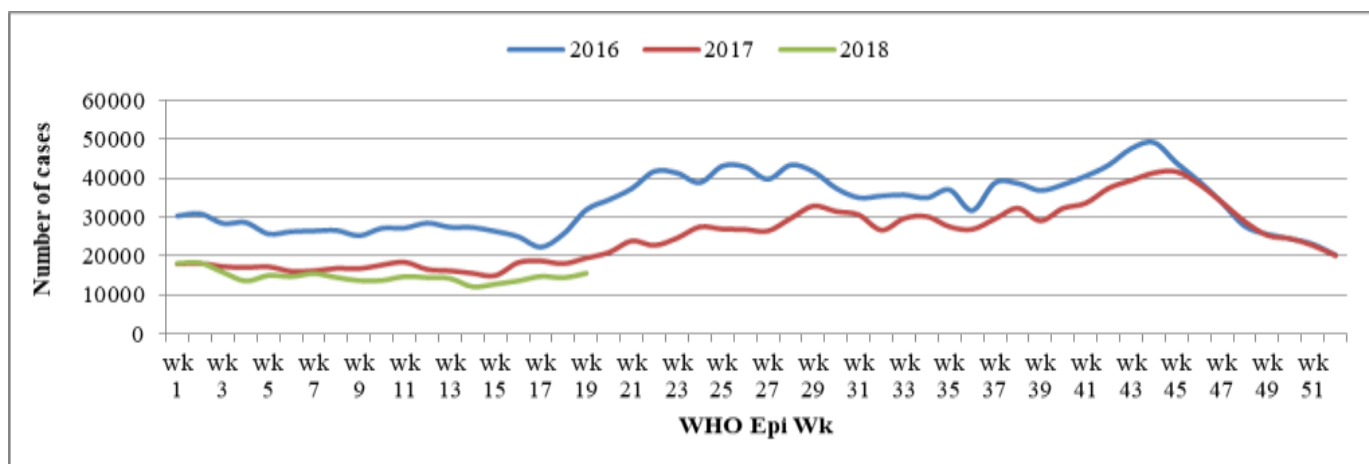


Figure 3: National malaria (clinical and laboratory confirmed) trend by week from 2016-2018, Ethiopia.

Cascading the malaria cases to regions, 22.9% (4,472cases), 19.2% (3,754cases) and 15.6% (3,040 cases) were reported from SNNP, Amhara and Benishangul-Gumuz Regions respectively during the week.

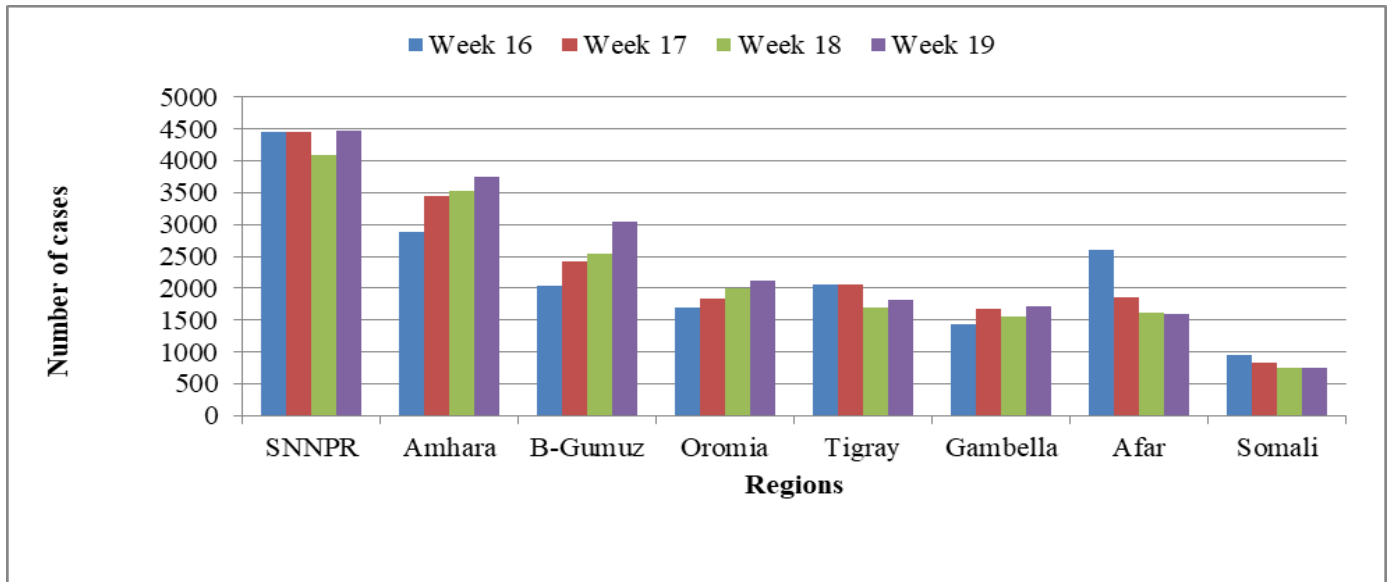


Figure 4: Regional malaria cases distribution, week 16-19, 2018, Ethiopia.

A total of 844 cases (5.4%) of malaria were treated clinically nationwide while 48.3% and 13.2% were treated clinically in Somali and Gambella Regions respectively. The clinically treated malaria cases during the week is slightly above the national recommendation at the national level and in Gambella Region (13.2%) and Somali Region (48.3%). The nationwide malaria slide positivity rate during the week is 13.7% while 66.2% and 34.9% in Somali, Gambella and Afar Regions respectively.

2. Suspected Meningitis

During the week, a total of 53 suspected meningitis cases with no deaths were reported from Oromia (29 cases), Addis Ababa (8 cases), SNNPR (8 cases), Amhara (3 cases), Somali (3 cases) and Tigray (2 cases). The suspected cases reported during the week were higher than the suspected cases during the same week of the last two years cases.

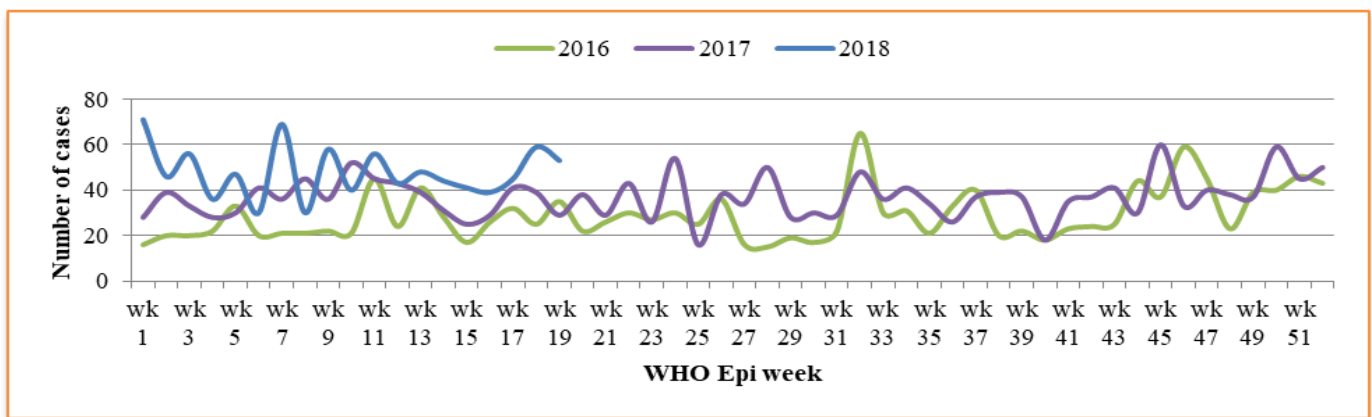


Figure 5: Trend of suspected meningitis cases over week, 2016-2018, Ethiopia.



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Table 2: Suspected meningitis cases and deaths distribution by reporting sites, week 19, 2018, Ethiopia.

Region	Zone	Woreda	Cases	Death
Oromia	West Shewa	Gedo Hospital	6	0
Oromia	Horo Gudru Wellega	Amuru	5	0
Addis Ababa	Gulele	St. Paulos Hospital	5	0
SNNPR	Gedeo	Dila Hospital	3	0
Oromia	Bale	Goba Town	3	0
Oromia	Robe town	Robe Town	3	0
Oromia	Horo Gudru Wellega	Shambu Hospital	3	0
Oromia	Guji	Adola Hospital	2	0
Somali	Liben	Boqolmayo	2	0
Addis Ababa	Yeka	Dagmawi Menelik Hospital	2	0
Oromia	West Shewa	Guder Hosp	2	0
SNNPR	Halaba	Halaba Hospital	2	0
Oromia	Ilu Aba Bora	Metu Town	2	0
SNNPR	Bench Maji	Mizan Aman Hospital	2	0
Tigray	Central Tigray	Akisum Town	1	0
Amhara	East Gojjam	Baso Liben	1	0
SNNPR	Halaba	Besheno HSP	1	0
Somali	Jarar	Dagahbur Hospital	1	0
Amhara	East Gojjam	Dejen	1	0
Oromia	North Shewa	Fiche Hospital	1	0
Oromia	West Shewa	Gindeberet Hospital	1	0
Tigray	Western Tigray	Humera Town	1	0
Oromia	Arsi	Merti	1	0
Amhara	South Wollo	Sayinit	1	0
Addis Ababa	Lideta	Tikur Anbesa	1	0
Grand Total			53	0

3. Dysentery

During the week, a total of 6,820 dysentery cases without death were reported showing 7.9% (500 cases) increment as compared to last week. The number of cases reported during the week is higher than the number of cases reported during the same week of the 2017.

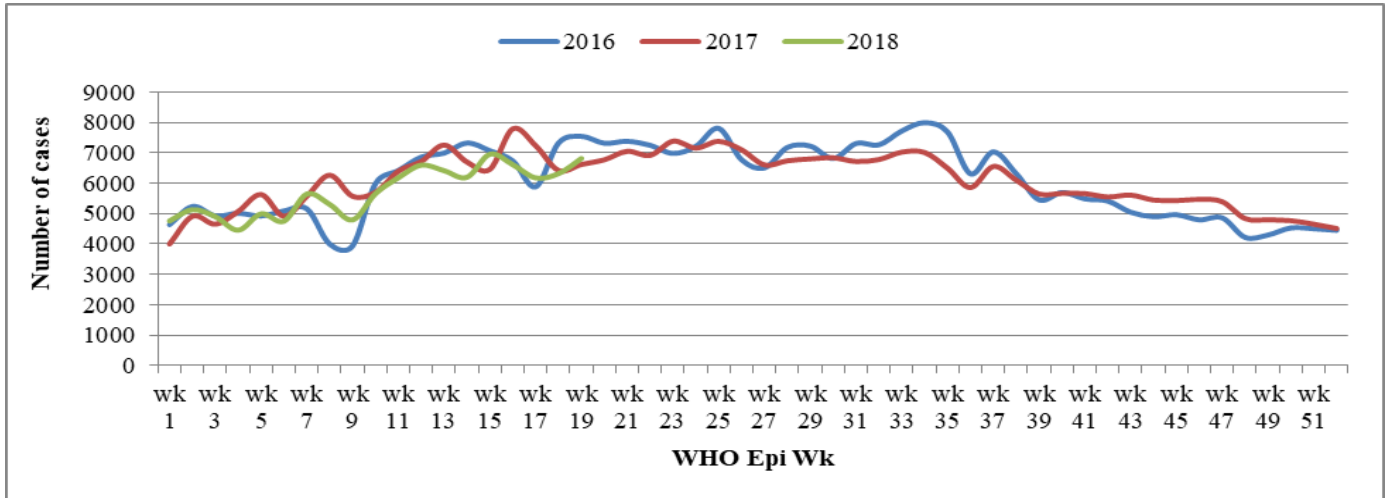


Figure 6: Dysentery cases trend by week, 2016-2018, Ethiopia.

Amhara Region reported highest number of cases (2,075 cases) followed by Oromia Region (1,714 cases) and SNNP Region (809 cases) during the week.

4. Typhoid Fever

During the week, a total of 25,259 cases of typhoid fever without death were reported which was 6.1% (1,449 cases) higher than the last week. The typhoid fever cases reported during the week is higher than the number of cases reported during the same weeks of the last two years.

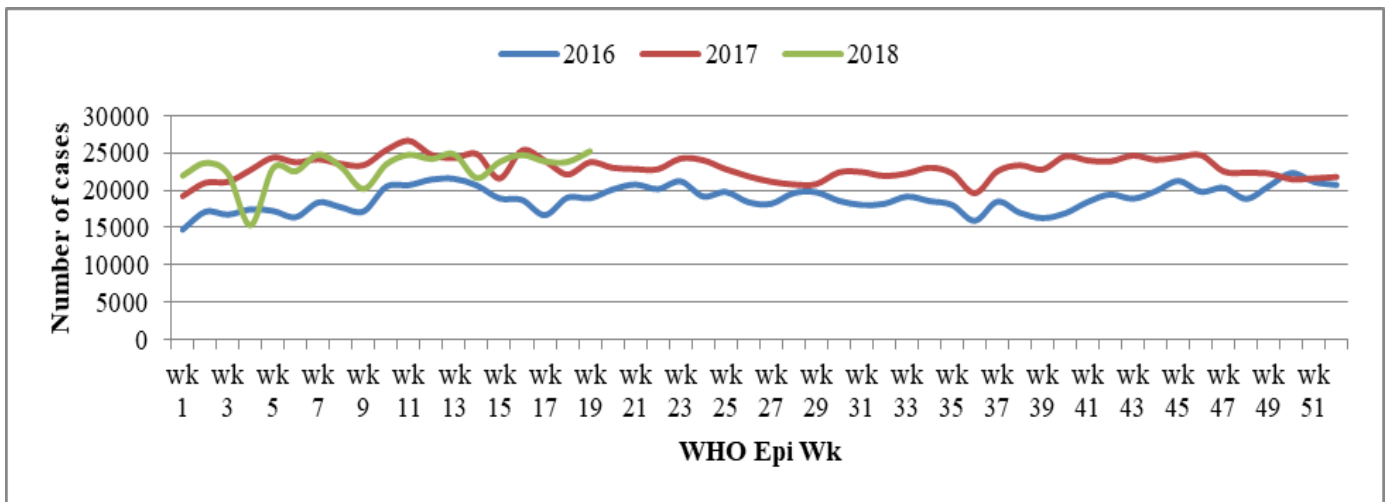


Figure 7: Typhoid fever cases trend by week, 2016-2018, Ethiopia.

SNNP Region reported highest number of cases (9,136 cases) followed by Oromia Region (6,876 cases) and Addis Ababa City Administration (3,802 cases) during the week.



5. Relapsing Fever

A total of 36 cases of relapsing fever without death were reported during the week which was 32.1% (17 cases) lower than the last week. The number of cases reported during the week is higher than the number of cases reported during the same week of 2017.

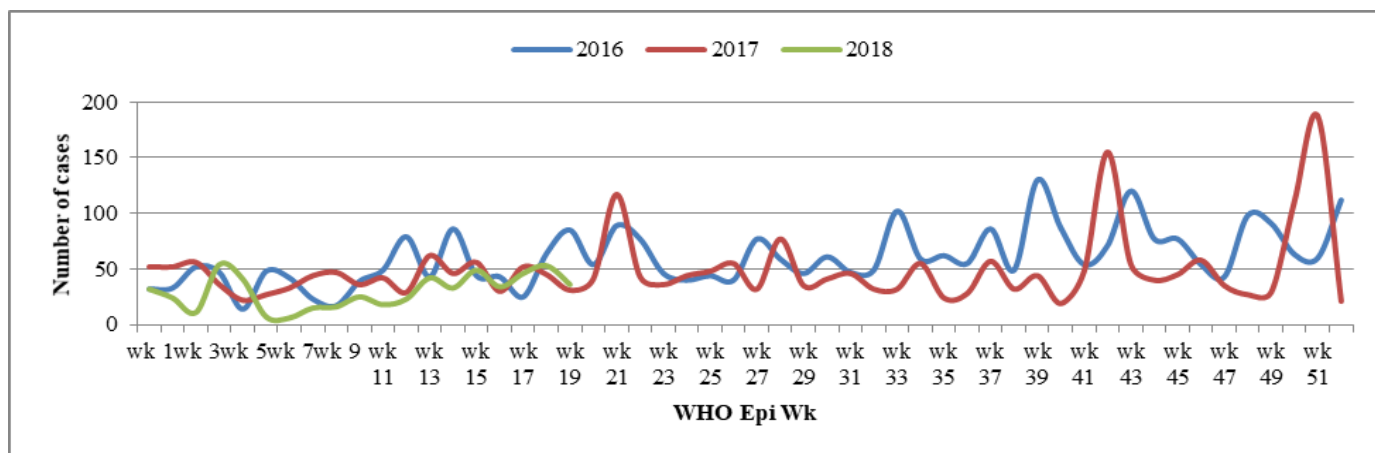


Figure 8: Relapsing fever cases trend by week, 2016-2018, Ethiopia.

Addis Ababa City Administration reported highest number of cases (18 cases) followed by Afar Region (13 cases), SNNPR (4 cases) and Oromia Region (1 case) during the week.

6. Epidemic Typhus

A total of 11,226 cases of epidemic typhus without death were reported during the week, which was 14.8% (1,444 cases) higher than the last week. The number of cases reported during 2018 were higher than the number of cases reported during the same weeks of the last two years.

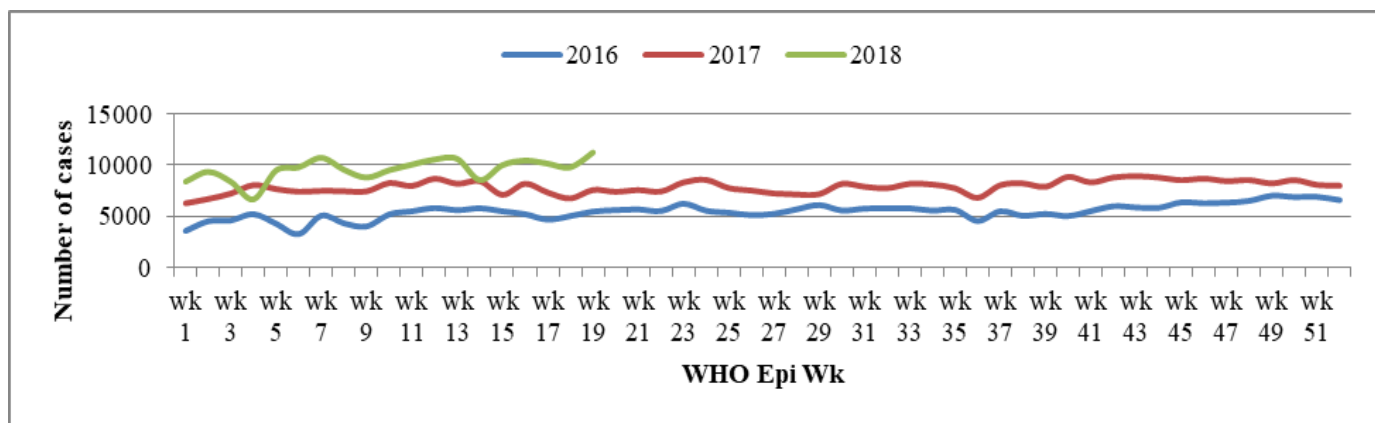


Figure 9: Epidemic typhus cases trend by week, 2016-2018, Ethiopia.

SNNP reported highest number of cases (3,783 cases) followed by Addis Ababa City Administration (3485 cases), SNNP Region (2,802 cases) and Amhara Region (2,012 cases).

7. Severe Acute Malnutrition

During the week, a total of 4,557 cases with five deaths were reported which showed 5.5% (239 cases) increment as compared to last week. The severe acute malnutrition cases reported during the week were lower than the number of cases reported during the same weeks of the last two years.

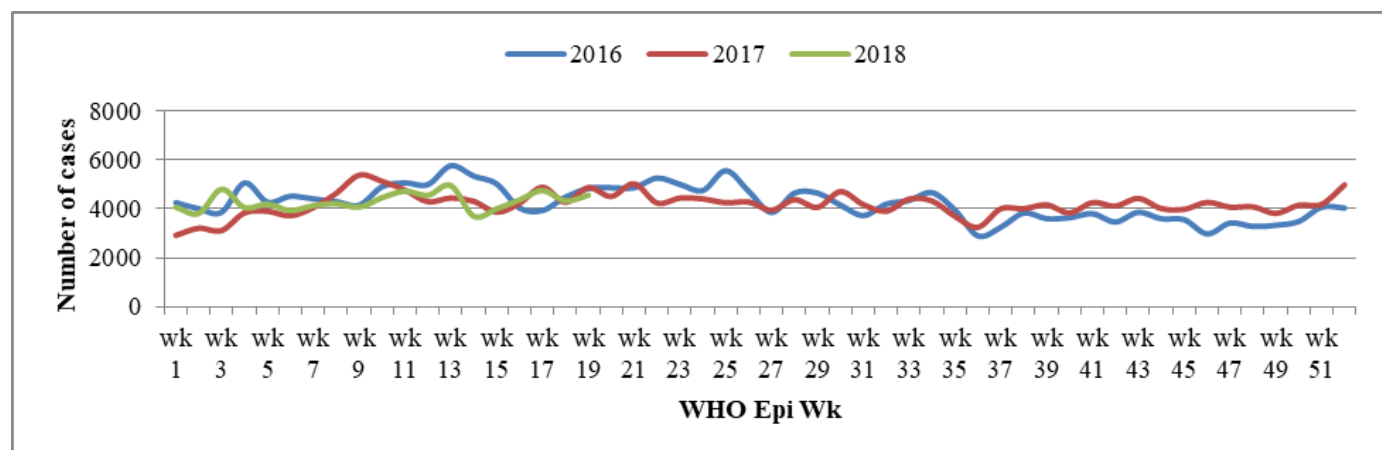


Figure 10: Severe acute malnutrition cases trend by week, 2016-2018, Ethiopia.

About 573 (12.6%) of the total reported SAM cases were treated in patient during the week nationally.

Oromia Region reported highest number of cases (1,958 cases) followed Somali (880 cases), SNNP (781 cases) and Amhara (459 cases) during the week.

The top ten severe acute manutrition leading woredas during the last one month (week 16-19) were from Oromia, Afar and Somali Regions.

Table 3: Top ten severe acute malnutrition cases reporting woredas, week 16-19, 2018, Ethiopia.

Region	Zone	Woreda	Week 16	week 17	Week 18	Week 19	Total cases
Oromia	East Hararge	Bedeno	72	58	75	99	304
Afar	Zone 02	Dalol	33	67	41	80	221
Oromia	West Arsi	Siraro	64	53	71	78	266
Oromia	West Arsi	Shashemene Rural	74	56	55	65	250
Somali	Shabeele	EastImey	67	68	62	61	258
Oromia	East Hararge	Fedis	56	61	75	56	248
Oromia	East Hararge	Girawa	45	79	52	51	227
Somali	Afder	ElKare	39	59	55	45	198
Oromia	East Hararge	Gursum	38	51	45	45	179
Oromia	East Hararge	Haromaya Rural	73	58	51	38	220
Grand Total			561	610	582	618	2371



8. Scabies

During the week a total of 5,843 cases were reported which is 0.8% (47 cases) higher than the last week. Amhara (2,040 cases) reported highest number of cases followed by SNNP Region (1,939 cases) and Oromia Region (1,480 cases).

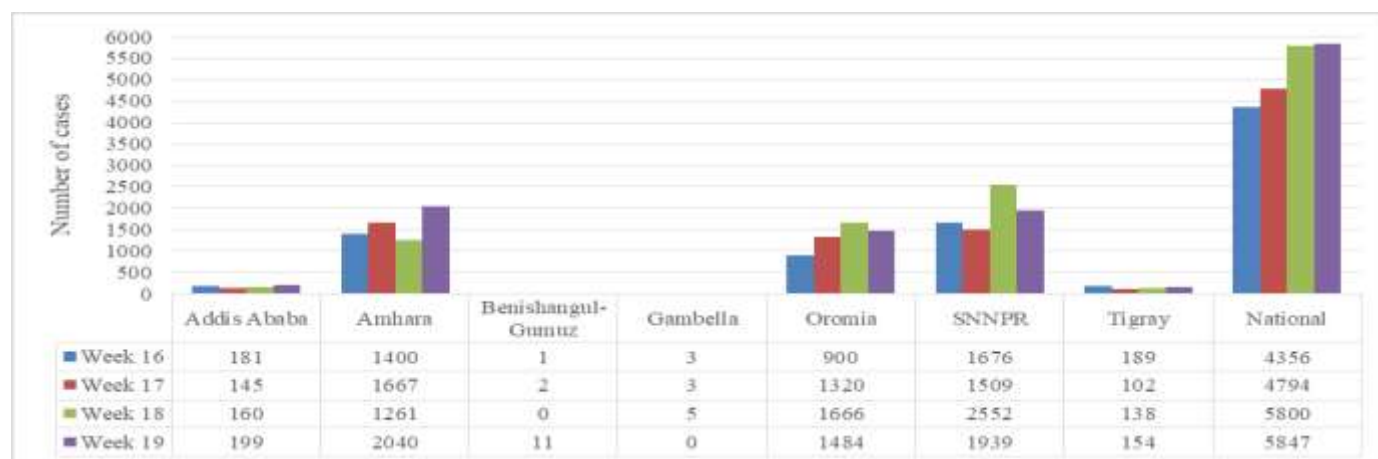


Figure 11: Scabies cases distribution and trend by Region, week 16-19, 2018, Ethiopia.

9. Acute Flaccid Paralysis (AFP)

During the week a total of 6 suspected AFP cases were reported which was 53.8% (7 suspected cases) lower than the number of the suspected cases during the last week.

Table 4: Distribution of acute flaccid paralysis cases by reporting woredas, week 19, 2018, Ethiopia.

Region	Zone	Reporting sites	Suspected cases	Death
Tigray	Western Tigray	Tsegede	2	0
Addis Ababa	Addis Ketema	Addis Ketema Woreda07	1	0
SNNPR	Segen	Gedola Hospital	1	0
Oromia	Arsi	Hitosa	1	0
SNNPR	Siliti	Silite	1	0
Grand Total			6	0

10. Suspected Anthrax

A total of 38 suspected anthrax cases with one death were reported from Amhara, Oromia and Tigray Regions during the week which was 100% higher from the number of cases reported during the last week.

Table 5: Distribution of suspected anthrax cases and deaths by woredas, week 19, 2018, Ethiopia.

Region	Zone	Woreda	Cases	Deaths
Oromia	West Shewa	Tikur Enchini	9	0
Amhara	Wag Himra	Dehena	5	1
Amhara	South Wollo	Sayinit	5	0
Amhara	Wag Himra	Sehale Seyemt	5	0
Amhara	South Gonder	Tach Gayint	4	0
Amhara	Wag Himra	Zikwala	4	0
Amhara	North Gondar	Jan Amora	2	0
Amhara	Wag Himra	Abergele	1	0
Tigray	Central Tigray	Abiyi Adi Town	1	0
Tigray	North Western Tigray	Lelay Adiabo	1	0
Tigray	South East	Samre Saharati	1	0
Grand Total			38	1

11. Suspected Measles

During the week, a total of 200 suspected measles cases without death were reported and as compared to last week there was 83.5% (91 suspected cases) increment. Measles suspected outbreak threshold was surpassed in twenty four woredas based on the national outbreak threshold criteria (woreda that reported greater than five suspected cases over the last four weeks, 16-19 weeks).



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Table 6: Woredas in which suspected measles outbreak threshold is surpassed as of week 19, 2018, Ethiopia.

Region	Zone	Woreda	Week 16	week 17	Week 18	Week 19	Total cases
Benishangul-Gumuz	Assosa	Oda Bildagul	0	0	0	43	43
Amhara	East Gojjam	Awabel	2	0	0	35	37
Somali	Doollo	Danot	9	-	0	13	22
Oromia	Woliso town	Woliso Town	2		14	12	28
Addis Ababa	Bole	Bole Woreda10	2	2	6	7	17
Somali	Shabeele	Abakaorow	-	-	-	6	6
Addis Ababa	Nefas Silk Lafto	Nefas Silk Lafto Woreda03	5	5	3	6	19
Oromia	East Shewa	Liben	0	0	0	5	5
Oromia	Guji	xxx	0	0	0	5	5
Oromia	South West Shewa	Woliso*	1	2	1	5	9
Addis Ababa	Gulele	Gulele Woreda03	2	6	6	3	17
Benishangul-Gumuz	Assosa	Menge	8	9	4	3	24
Somali	Doollo	Warder*	39	-	-	3	42
Addis Ababa	Bole	Bole Woreda03	3	2	1	2	8
Addis Ababa	Nefas Silk Lafto	Nefas Silk Lafto Woreda06	3	2	0	2	7
Addis Ababa	Nefas Silk Lafto	Nefas Silk Lafto Woreda09	0	2	1	2	5
Addis Ababa	Yeka	Yeka Woreda13	4	4	2	2	12
Somali	Doollo	Galadi	8			1	9
Addis Ababa	Chirkos	Kirkos Woreda06	1	4	1	1	7
Tigray	Mekele Especial Zone	South & North Mekele	3	1	1	1	6
Addis Ababa	Akaki Kaliti	Akaki Kaliti Woreda09	3	3	1	0	7
Oromia	East Hararge	Aweday Town	3	0	3	0	6
Somali	Jarar	Gashamo	2	5	0	0	7
Oromia	Ilu Aba Bora	Metu Town	1	1	7	0	9
Addis Ababa	Yeka	Yeka Woreda06	2	4	0	0	6
Grand Total			103	52	51	152	358

Note: “-“ = the woreda has not reported during the week

*report includes cases reported from hospital

12. Suspected Neonatal Tetanus

During the week there was one suspected case reported from Oromia Region.

13. Rabies Exposure

A total of 97 exposure cases with no deaths were reported during the week which was 1% (1 exposure cases) lower than the last week exposure cases.

Table 7: Distribution of suspected rabies exposure cases and deaths by reporting sites, week 19 of 2018, Ethiopia.

Region	Zone	Woreda	Exposure Cases	Deaths
Benishangul-Gumuz	Assosa	Assosa Hospital	12	0
Amhara	Gonder Town	Gonder Town	12	0
Addis Ababa	Chirkos	Kirkos Woreda11	8	0
Tigray	North Western Tigray	Shire Enida Silase Town	7	0
Tigray	Central Tigray	Akisum Town	6	0
Tigray	Central Tigray	Abiyi Adi Town	4	0
Benishangul-Gumuz	Assosa	Assosa Rural	4	0
Addis Ababa	Kolfe Keraniyo	Kolfe Keraniyo Woreda04	4	0
Benishangul-Gumuz	Maokomo Special	Maokomo	4	0
Tigray	Mekele Especial Zone	South & North Mekele	4	0
Tigray	Eastern Tigray	Adi Girat Town	3	0
Addis Ababa	Chirkos	Kirkos Woreda04	3	0
Tigray	South Tigray	Korem Town	3	0
Tigray	Eastern Tigray	Wekero Town	3	0
Amhara	Dese Town	Dese Town	2	0
Oromia	Bale	Ginir Town	2	0
Tigray	Western Tigray	Humera Town	2	0
Oromia	East Wellega	Jimma Arjo	2	0
Addis Ababa	Chirkos	Kirkos Woreda02	2	0
Addis Ababa	Chirkos	Kirkos Woreda03	2	0
Oromia	Sebeta Town	Sebeta Town	2	0
Tigray	North Western Tigray	Shiraro Town	2	0
Amhara	North Gondar	Debark Zuria	1	0
Benishangul-Gumuz	Assosa	Menge	1	0
Oromia	Nekemte Town	Nekemte Town	1	0
Tigray	North Western Tigray	Tahitay Adiyabo	1	0
Grand Total			97	0



14. Maternal Death

During the week a total of 28 maternal deaths were reported from 24 reporting sites of Oromia (12 deaths), Amhara (7 deaths), Addis Ababa (5 deaths), Tigray (2 deaths) and SNNP (2 deaths) Regions.

Table 8: Distribution of maternal deaths by reporting sites, week 19 of 2018, Ethiopia.

Region	Zone	Woreda	Deaths
Amhara	North Gondar	Beyeda	2
Amhara	North Shewa	Enat Hospital	2
Oromia	East Hararge	Kurfa Chele	2
Addis Ababa	Gulele	St. Paulos Hospital	2
Oromia	Bale	Agarfa	1
Addis Ababa	Kolfe Keraniyo	ALERT Hospital	1
Amhara	Oromiya	Bati Rural	1
Oromia	Burayu Town	Burayu Town	1
SNNPR	Kefa	Decha	1
Oromia	East Hararge	Deder Hospital	1
Amhara	Wag Himra	Dehena	1
Oromia	West Shewa	Elifata	1
Oromia	Bale	Goba Town	1
Oromia	East Hararge	Kersa EH	1
Amhara	South Wollo	Kutaber	1
Oromia	West Wellega	Lata Sibru	1
Oromia	West Shewa	Meta Waliqite	1
Tigray	South East	Samre Saharati	1
SNNPR	Segen	Segen Town A	1
Oromia	Bale	Sinana	1
Addis Ababa	Akaki Kaliti	Tirunesh Bejing Hospital	1
Tigray	Western Tigray	Welqayet	1
Oromia	Qeleme Wellega	Yemalogi Wolel	1
Addis Ababa	Chirkos	Zeweditu Hospital	1
Grand Total			28

15. Other Immediately Notifiable Diseases/Conditions

During the week zero suspected cases of avian human influenza, drancunculiasis, pandemic influenza, small pox, hemorrhagic fever, SARS and yellow fever were reported.

IV. Diseases/Conditions Outbreaks

1. Acute Watery Diarrhea Outbreak

Acute watery diarrhea outbreak is re occurred in Dubti woreda of Afar Region and ongoing but no case was reported during the week. A team comprising of field epidemiologists are investigating and responding to the outbreak with all stakeholders.

V. Global Situation

1. Ebola Viral Disease Outbreak in Democratic Republic of Congo

The outbreak of Ebola virus disease (EVD) in the Democratic Republic of the Congo continues to evolve. As of May 20, 2018 a total of 51 Ebola cases with 27 deaths (case fatality rate 52.9%), have been reported. Of the 51 cases, 28 have been confirmed, 21 probable and two remain suspected cases. A total of five health care workers have been affected, with four confirmed cases and two deaths. Three health zones have been affected: Bikoro (29 cases and 22 deaths), Iboko (16 cases and 3 deaths) and Wangata (6 cases and 4 deaths). Bikoro Health Zone remains the epicenter of the outbreak, accounting for 56.9% of all reported cases and 81.5% of all deaths.

Source: Ebola Viral Diseases Democratic Republic of Congo External Situation Report 4: can be accessed from www.who.int/ebola/situation-report/drc-2018/en/



VI. Other Activities

1. Ebola Viral Diseases Prevention and Control Preparedness Activities

Ethiopian Public Health Institute Center for Public Health Emergency Management with all stakeholders has continued preparatory activities to prevent and control Ebola Viral Diseases following the declaration of EVD outbreak by the Ministry of Health of Democratic Republic of Congo on May 8, 2018. Accordingly, screening activities at ports of entry and follow up strengthened, orientation for surveillance officers (PHEM staffs and FETP residents) at national level and EFMHACA provided, treatment and isolation unit established, media briefing conducted and drilling exercise started.

2. Practical Sample Collection and Surveillance of Anthrax in Humans and Animals Training

Training was given on practical sample collection and surveillance of anthrax in humans and animals in Bishoftu town from May 16-18, 2018. A total of 46 participants from South Omo Zone, different veterinary sectors including regional and district vets, vet regional laboratory, NAHDIC, Ministry of Agriculture and Livestock, and EPHI (microbiology laboratory and zoonotic team) participated in the training. Practical sample collection were undertaken in animals and humans.

3. MPDSR System Supporting Document Preparation Workshop

MPDSR system supporting document preparation workshop was held in Adama town from May 22-24/2018 with two main objectives: to prepare death reviewing protocol for health professionals and MPDSR pocket guide for health extension workers which will be further translated to five local languages. Participants were from all regions and stakeholders including WHO, UNFPA and MOH/MCH.

4. EOC Training Material Adaptation Workshop

Ethiopian Public Health Institute center for Public Health Emergency Management has organized EOC Training material adaptation workshop in Bishoftu town from May 23-25/2018. In the workshop different stakeholders including WHO, CDC, PHE UK and NDRMC had participated.

5. Public Health Emergency Operation Center 2nd Technical meeting

Ethiopian Public Health Institute center for Public Health Emergency Management Emergency Operation Center conducted PHEOC 2nd Technical meeting in EPHI training center on May 23, 2018 with Stakeholders from CDC Ethiopia, WHO, MSF Holland, MSF, FMoH, IRC, EFMHACA, AARHB, UNICEF and WFP.

6. Weekly Epidemiological Feedback

Weekly epidemiological surveillance data feedback were prepared by regional focals and communicated to the respective regions.



Aknowledgements

Many thanks to all regional states health bureau, zonal health departments, woreda health offices and governmental and nongovernmental health facilities for sharing to cPHEM their respective regional weekly surveillance data, data managers of EPHI/cPHEM for compiling all regional surveillance data and all national PHEM officers for their close follow-up and sharing updates. Additionally, the center would like to extend its gratitude to FMOH, PFSA, EFMHACA, NAHDIC, Ministry of Livestock and Fishery, Ministry of Defense, Federal Police, different directorates of EPHI, US CDC, African CDC, WHO, UNICEF, PHE UK, MSF, NDRMC, UNFPA, ARRA and WFP.

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Abrham Lilay¹: *EOC training material adaptation workshop*

Zemene Worku¹: *SAM, AFP, Anthrax, rabies exposure and Neonatal tetanus*

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