



Highlights of the week

Surveillance Completeness Rate: Nationally, the proportion of health facilities that reported surveillance data was 90.3% 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. 83.7%.

Malaria: A total of 103,629 febrile cases were suspected for malaria and tested either by microscopy or RDT in the week. Of these cases, 13.1% (13,540) were treated for malaria. As compared to last week, there was 5.6% (723 cases) increment.

Severe Acute Malnutrition: A total of 4,265 cases with four deaths were reported with increment of 6.8% (270 cases) as compared to last week.

Measles: A total of 158 cases were reported and measles suspected outbreak threshold was surpassed in twenty two woredas as of the week.

Meningitis: A total of 39 suspected meningitis cases with one death were reported.

Anthrax: A total of 13 suspected anthrax cases with two deaths were reported during the week.

Rabies Exposure: A total of 107 exposure cases with two deaths were reported which was 20.2% (17 exposure cases) higher than the last week.

Maternal Death: A total of 23 maternal deaths were reported from 22 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 some woredas of Somali and Tigray Regions and no case was reported during the week.

NAPHS Costing Exercise: Costing exercise workshop was conducted in Bishoftu Town.

MDSR System Evaluation Protocol Development: A workshop to prepare a protocol to evaluate MDSR was conducted in Adama Town.



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 16 of 2018 and daily phone communication, line list reports of outbreaks for week 17 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 15 and 16, 2018, Ethiopia.

Indicators/diseases/conditions	2018		
	Week 15	Week 16	% Change
Percent of Health Facility reported	94.5%	90.3%	-4.4
Percent of Health Facility reported timely	91.7%	83.7%	-8.7
Total Malaria Confirmed and Clinical	12,817	13,540	5.6
Typhoid fever	23,802	24,242	1.8
Epidemic Typhus	9,987	10,427	4.4
Dysentery	6,960	6,455	-7.3
Severe Acute Malnutrition	3995	4265	6.8
Suspected Measles	132	158	19.7
Rabies exposure	90	107	20.2
Suspected Meningitis	41	39	-4.9
Relapsing Fever	49	34	-30.6
Suspected Anthrax	11	13	18.2
Maternal Death	38	23	-39.5
Acute Flaccid Paralysis	12	13	8.3
Acute Watery Diarrhea	0	0	0.0
Neonatal Tetanus	5	1	-80.0
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 90.3% in the week which is above the minimum requirement (80%) and all regions had achieved above the minimum requirement (Fig 1).

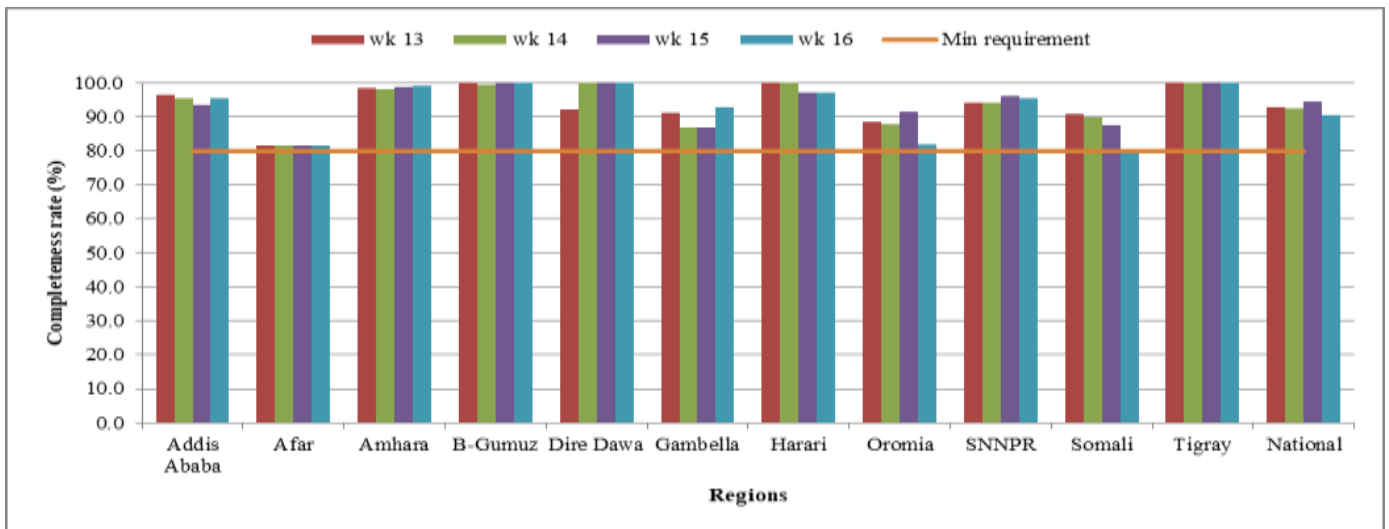


Figure 1: Surveillance data completeness rate by regions, week 13-16, 2018, Ethiopia.

B. Public Health Surveillance Reporting Timeliness Rate

During the week the national surveillance data reporting timeliness rate was 83.7% which is above the minimum requirement and all regions except Afar Region (0.0%), Somali Region (0.0%) and Oromia Region (78%) had achieved above the minimum requirement, 80%.

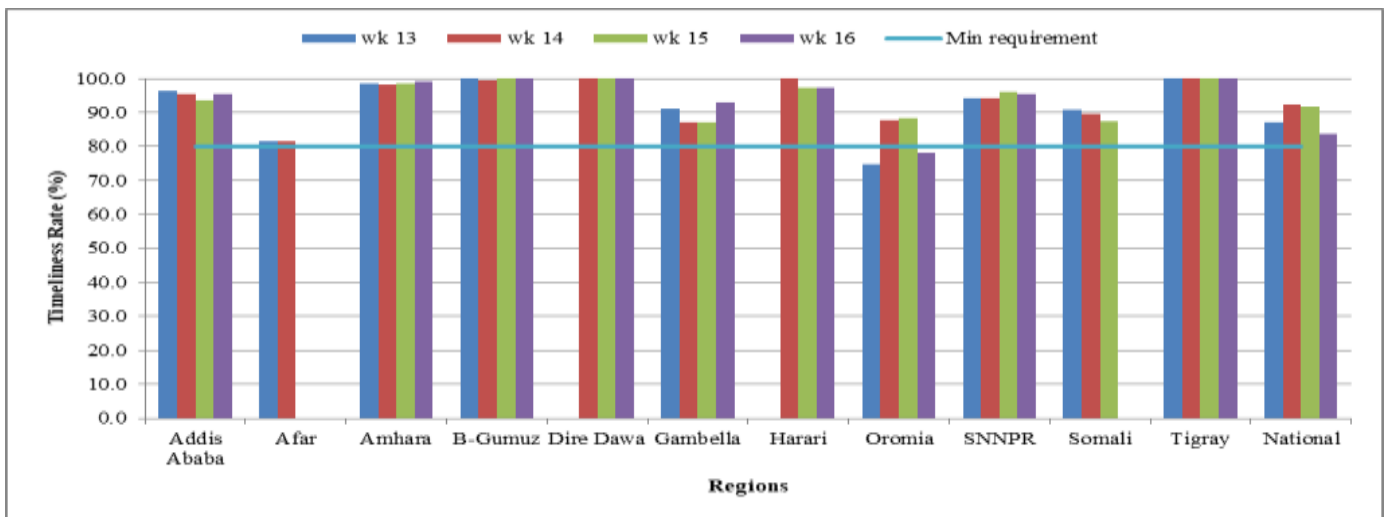


Figure 2: Surveillance data completeness rate by regions, week 13-16, 2018, Ethiopia.



IV. Diseases/Conditions under Surveillance Updates

1. Malaria

During the week a total of 103,629 health facilities visitors were suspected and examined for malaria of which 13.1% (13,540) cases were treated as malaria which was 5.6% (723 cases) higher than the last week. Plasmodium falciparum contributes the highest portion of the cases reported during the week, 70.6% (8,975 cases) of the cases nationally and 100.0%, 91.7% and 89.6% in Dire Dawa, Gambella 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.

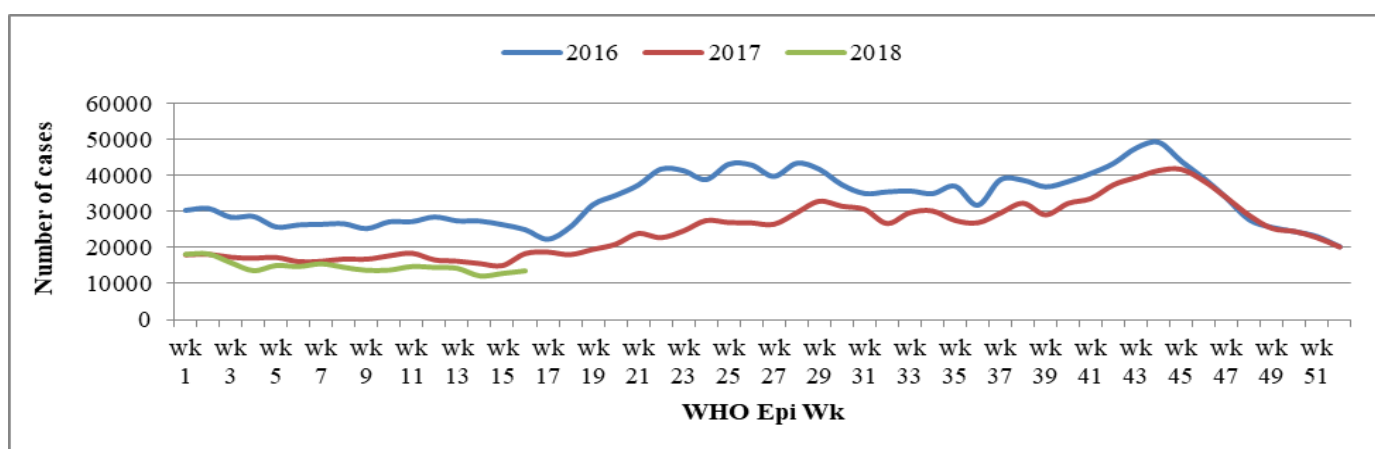


Figure 3: National malaria (clinical and laboratory confirmed) trend by week from 2016-2018, Ethiopia.

Cascading the malaria cases to regions, 22.7% (3,076 cases), 16.4% (2,222 cases) and 15.3% (2,070 cases) were reported from SNNP, Amhara and Tigray Regions respectively during the week.

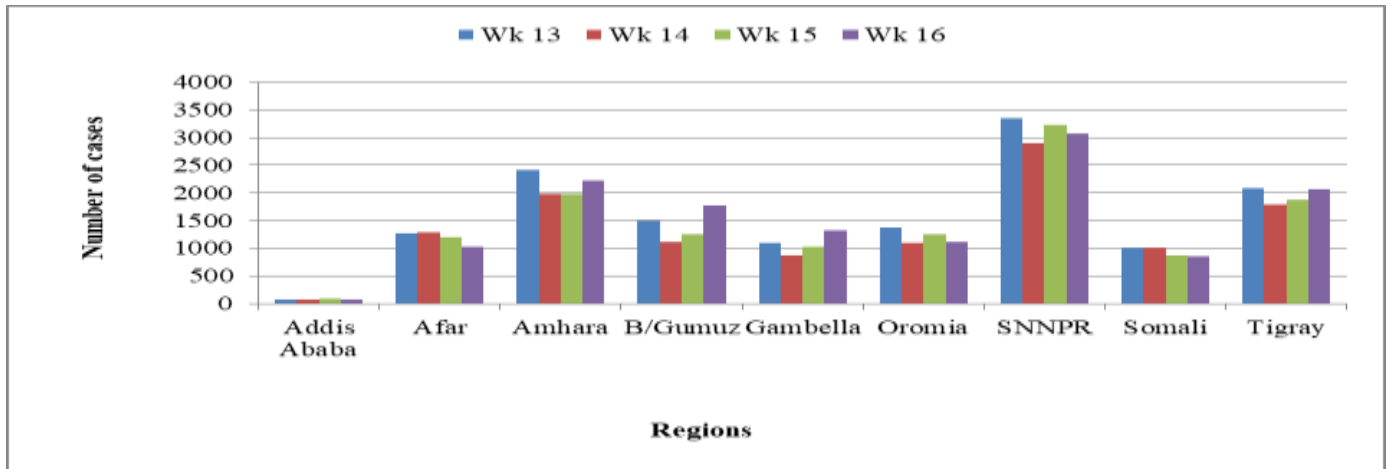


Figure 4: Regional malaria cases distribution, week 13-16, 2018, Ethiopia.

A total of 823 cases (6.1%) of malaria were treated clinically nationwide while 75.0%, 66.4%, 25.0% and 13.0% were treated clinically in Dire Dawa, Somali, Harari and Gambella Regions respectively. The clinically treated malaria cases during the week is slightly above the national recommendation in Somali and Gambella Regions. The nationwide malaria slide positivity rate during the week is 12.3% while 56.4%, 43.2% and 30.3% in Somali, Gambella and Afar Regions respectively.

2. Suspected Meningitis

During the week, a total of 39 suspected meningitis cases with one death were reported from SNNP (12 cases), Oromia (11 cases), Addis Ababa (5 cases), Amhara (3 cases), B-Gumuz (2 cases), Tigray (2 cases), Gambella (2 cases), Somali (1 case) and Afar (1 case). The suspected cases reported during the week were higher than the suspected cases during the same week of the last two years cases.

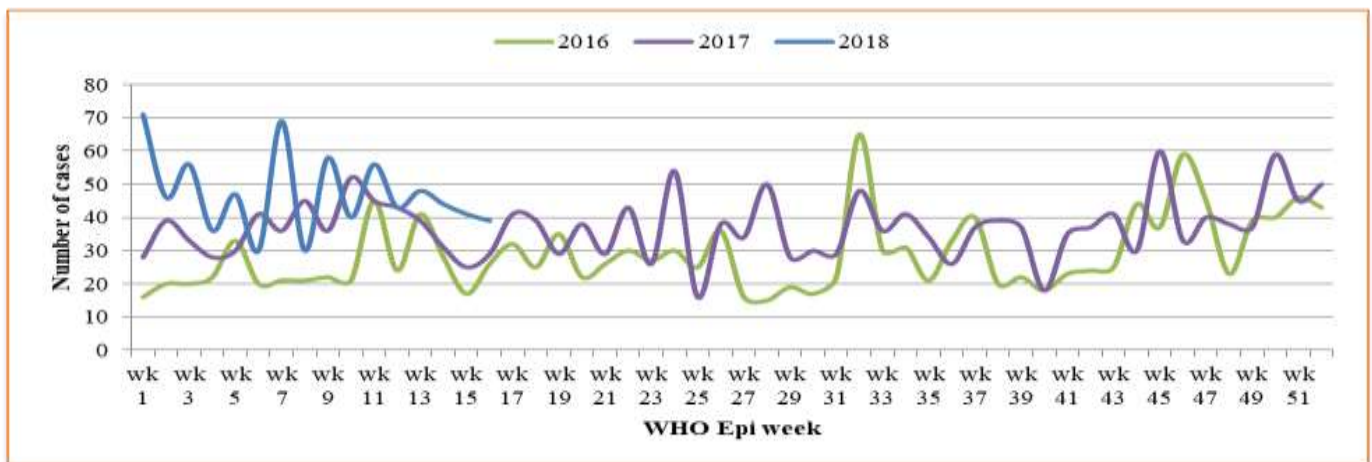


Figure 5: Trend of suspected meningitis cases over week, 2016-2018, Ethiopia.



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Table 2: Suspected meningitis cases and deaths distribution by reporting sites, week 16, 2018, Ethiopia.

Region	Zone	Reporting sites	Suspected cases	Death
SNNPR	Gedeo	Dila Hospital	6	0
Amhara	Wag Himra	Dehena	3	1
SNNPR	Halaba	Halaba Hospital	3	0
Addis Ababa	Yeka	Dagmawi Menelik Hospital	2	0
Gambella	Agnuwak	Gambella Hospital	2	0
Oromia	Bale	Goba Town	2	0
Benishangul-Gumuz	Metekel	Pawe Hospital	2	0
Oromia	Robe town	Robe town	2	0
Addis Ababa	Gulele	St. Paulos Hospital	2	0
Oromia	Jimma	Agaro	1	0
SNNPR	Basketo Town	Basketo Town	1	0
Oromia	West Hararge	Chiro Hospital	1	0
Afar	Zone 01	Dubti RHP	1	0
Oromia	East Hararge	Garemuleta Hospital	1	0
Oromia	Bale	Ginir Town	1	0
Tigray	Eastern Tigray	Hawzen	1	0
Tigray	Western Tigray	Humera Town	1	0
Oromia	Ilu Aba Bora	Metu Town	1	0
Oromia	Guji	Negele Hospital	1	0
SNNPR	Siliti	Silite	1	0
Addis Ababa	Akaki Kaliti	Tirunesh Bejing Hospital	1	0
SNNPR	Siliti	Werabie Hospital	1	0
Oromia	Horo Gudru Wellega	Shambu Hospital	1	0
Somali	Shabeele	Gode Hospital	1	0
Grand Total			39	1

3. Dysentery

During the week, a total of 6,455 dysentery cases without death were reported showing 7.4% (505 cases) decrement as compared to last week. The number of cases reported during the week is lower than the same week of the number of cases reported in the last two years.

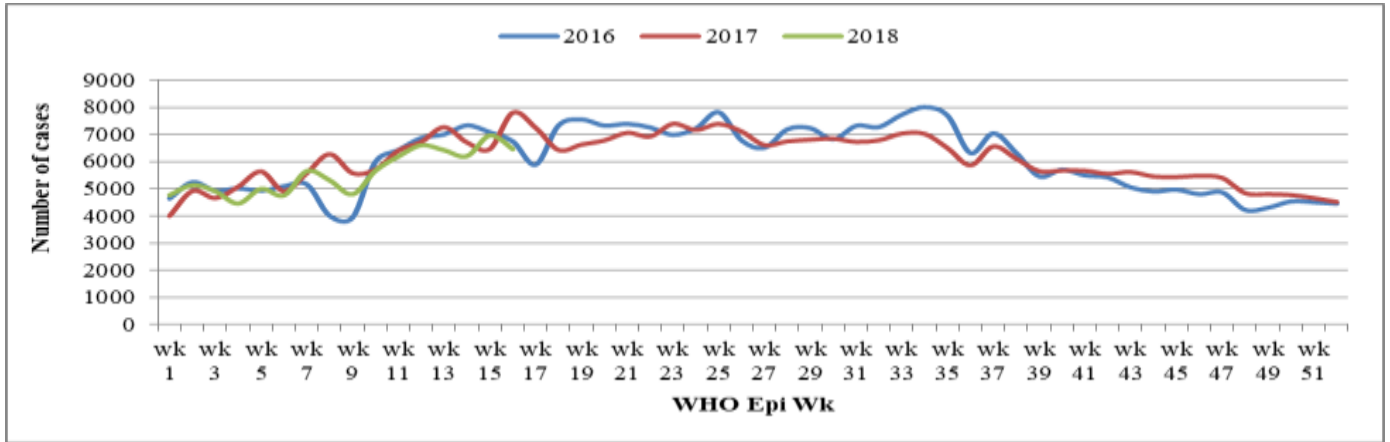


Figure 6: Dysentery cases trend by week, 2016-2018, Ethiopia.

Amhara Region reported highest number of cases (1,709 cases) followed by Oromia Region (1,639 cases) and SNNP Region (961 cases) during the week.

4. Typhoid Fever

During the week, a total of 24,242 cases of typhoid fever without death were reported which was 1.8% (440 cases) higher than the last week. The typhoid fever cases reported during the week is lower than the number of cases reported during the same week of 2017.

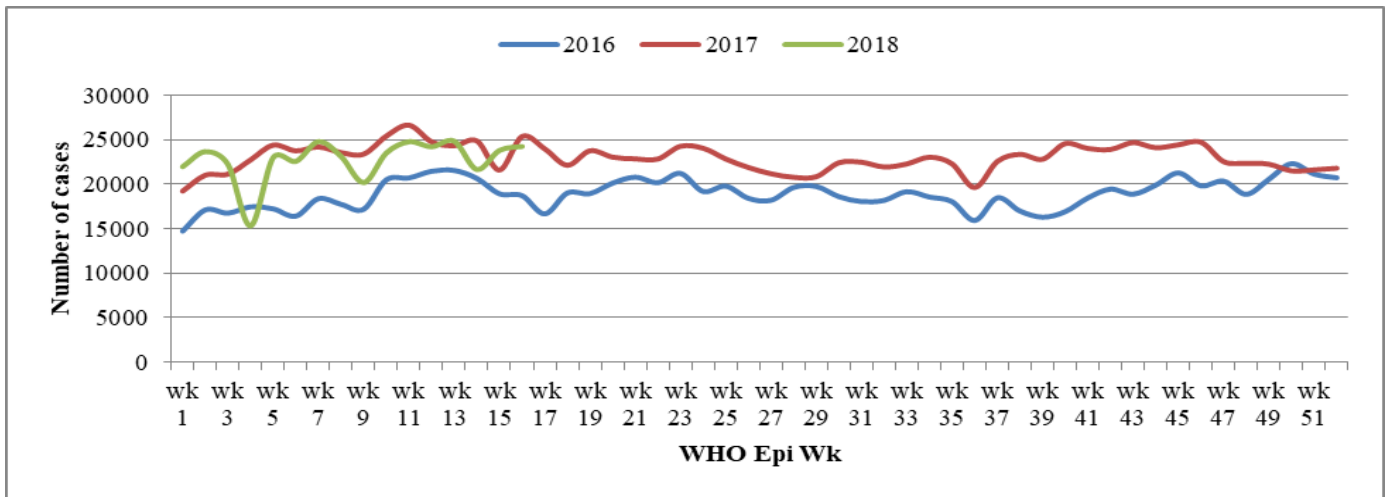


Figure 7: Typhoid fever cases trend by week, 2016-2018, Ethiopia.

SNNP Region reported highest number of cases (8,802 cases) followed by Oromia Region (6,419 cases) and Addis Ababa City Administration (3,901 cases) during the week.



5. Relapsing Fever

A total of 34 cases of relapsing fever without death were reported during the week which was 30.6% (15 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.

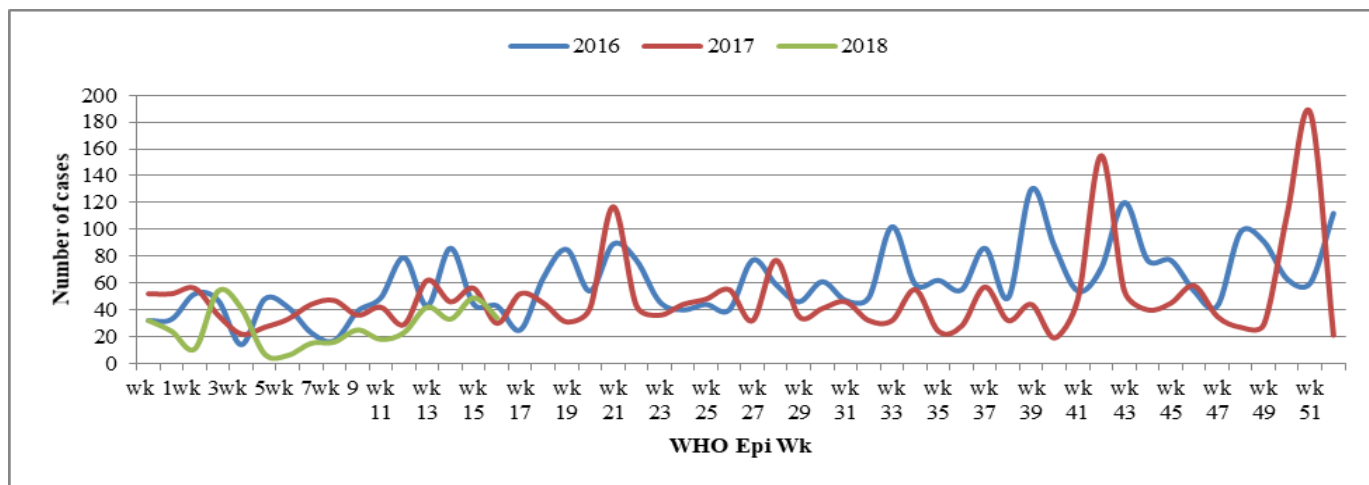


Figure 8: Relapsing fever cases trend by week, 2016-2018, Ethiopia.

Addis Ababa City Administration reported highest number of cases (13 cases) followed by SNNP Region (12 cases) and Afar Region (7 cases) during the week.

6. Epidemic Typhus

A total of 10,427 cases of epidemic typhus without death were reported during the week, which was 4.4% (440 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.

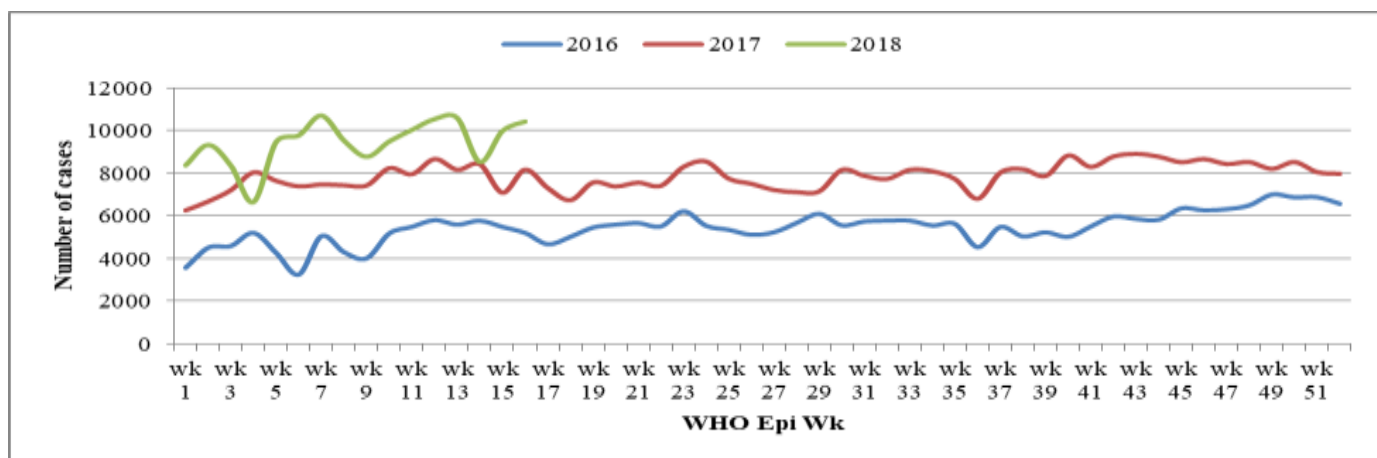


Figure 9: Epidemic typhus cases trend by week, 2016-2018, Ethiopia.

Addis Ababa City Administration reported highest number of cases (3,505 cases) followed by SNNP Region (3,101 cases) and Amhara Region (1,792 cases) during the week.

7. Severe Acute Malnutrition

During the week, a total of 4,265 cases with four deaths were reported which showed 6.8% (270 cases) increment as compared to last week. The severe acute malnutrition cases reported during the week were higher than the number of cases reported during the same week of 2016.

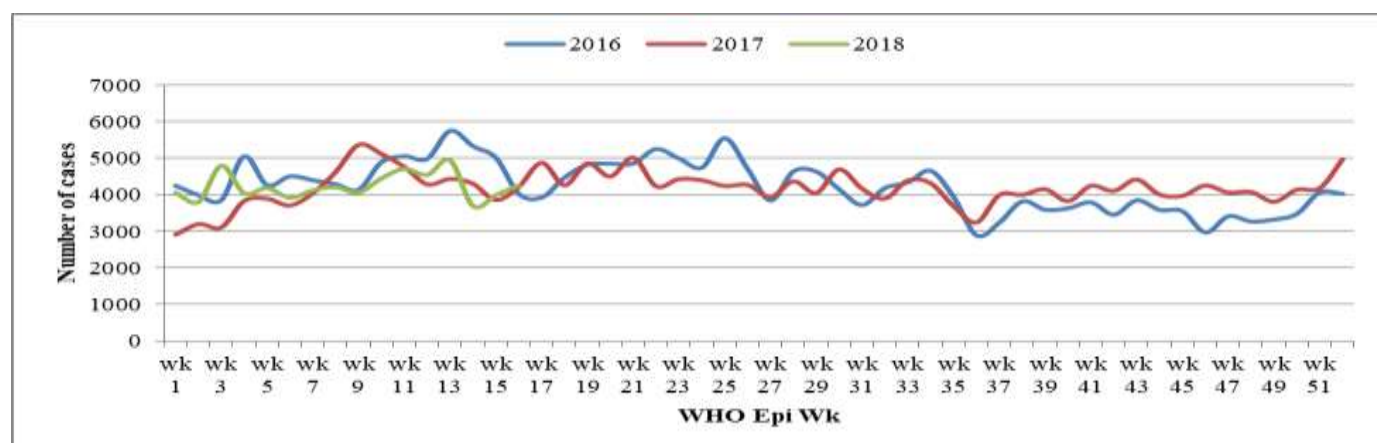


Figure 10: Severe acute malnutrition cases trend by week, 2016-2018, Ethiopia.

About 449 (10.5%) of the total reported SAM cases were treated in patient during the week nationally.

Oromia Region reported highest number of cases (1,678 cases) followed by Somali Region (876 cases) and SNNP Region (777 cases) during the week.

The top ten severe acute manutrition leading woredas during the last one month (week 13-16) were from Oromia and Somali Regions.

Table 3: Top ten severe acute malnutrition cases reporting woredas, week 13-16, 2018, Ethiopia.

Region	Zone	Reporting sites	Cases				Grand Total
			13	14	15	16	
Somali	Faafan	Kabribayah	48	15	36	103	202
Oromia	West Arsi	Shashemene Rural	87	45	78	74	284
Oromia	East Hararge	Haromaya Rural	23	28	55	73	179
Oromia	East Hararge	Bedeno	111	50	61	72	294
Somali	Shabeele	EastImey	0	62	67	67	196
Oromia	West Arsi	Siraro	89	59	84	64	296
Oromia	East Hararge	Fedis	91	51	64	56	262
Oromia	East Hararge	Girawa	61	68	69	45	243
Somali	Afder	EIKare	55	38	42	39	174
Oromia	West Arsi	Shala	54	53	59	35	201
Grand Total			619	469	615	628	2331



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8. Scabies

During the week a total of 4,356 cases were reported which is 5.9% (261 cases) lower than the last week. SNNP Region reported highest number of cases (1,676 cases) followed by Amhara Region (1,400 cases) and Oromia Region (899 cases) during the week.

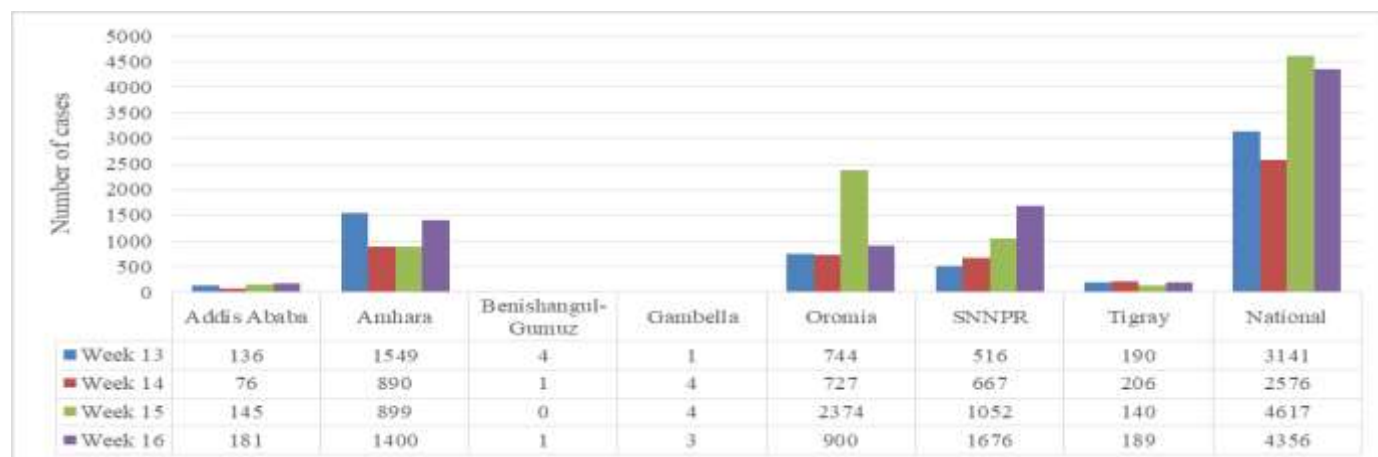


Figure 11: Scabies cases distribution and trend by Region, week 13-16, 2018, Ethiopia.

9. Acute Flaccid Paralysis (AFP)

During the week a total of 13 suspected AFP cases were reported which was 8.3% (1 suspected case) higher than the number of the suspected cases during the last week.

Table 4: Distribution of acute flaccid paralysis cases by reporting woredas, week 16, 2018, Ethiopia.

Region	Zone	Reporting sites	Suspected cases	Death
Oromia	Jimma	Agaro	1	0
SNNPR	Basketo Town	Basketo Town	1	0
Oromia	North Shewa	Dera	1	0
Afar	Zone 01	Elidar	1	0
Somali	Shabeele	Ellele	1	0
Oromia	Bale	Ginir Town	1	0
Amhara	South Wollo	Kombolcha Town	1	0
Amhara	South Wollo	Legamibo	1	0
SNNPR	Bench Maji	Mizan Aman Hospital	1	0
Oromia	West Arsi	Siraro	1	0
Addis Ababa	Lideta	Tikur Anbesa	1	0
SNNPR	Sheka	Yeki	1	0
Oromia	West Arsi	Dodola Hospital	1	0
Grand Total			13	0

10. Suspected Anthrax

A total of 13 suspected anthrax cases without death were reported from Amhara and Tigray Regions during the week which is 18.2% (2 suspected cases) higher than the number of suspected cases during the last week.

Table 5: Distribution of suspected anthrax cases and deaths by woredas, week 16, 2018, Ethiopia.

Region	Zone	Reporting sites	Suspected cases	Death
Amhara	South Wollo	Sayinit	3	0
Amhara	Wag Himra	Abergele	2	0
Amhara	Wag Himra	Dehena	2	2
Tigray	South East	Samre Saharati	2	0
Amhara	North Gondar	Debark Zuria	1	0
Amhara	Wag Himra	Shale Seyemt	1	0
Amhara	North Gondar	Takusa	1	0
Tigray	Western Tigray	Tsegede	1	0
Grand Total			13	2

11. Suspected Measles

During the week, a total of 158 suspected measles cases without death were reported and as compared to last week there was 19.7% (26 suspected cases) increment. Measles suspected outbreak threshold was surpassed in twenty two woredas based on the national outbreak threshold criteria (woreda that reported greater than five suspected cases over the last four weeks, 13-16 weeks).



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Table 6: Woredas in which suspected measles outbreak threshold is surpassed as of week 16, 2018, Ethiopia.

Region	Zone	Reporting sites	Suspected cases				Grand total
			wk 13	wk 14	wk 15	wk 16	
Somali	Doollo	Danot	0	6	14	9	29
Somali	Doollo	Galadi	3	5	2	8	18
Benishangul-Gumuz	Assosa	Menge	3	11	10	8	32
Addis Ababa	Nefas Silk Lafto	Nefas Silk Lafto Woreda03	2	3	5	5	15
Amhara	North Wollo	Bugna	4	1	8	4	17
Addis Ababa	Yeka	Yeka Woreda13	2	5	10	4	21
Benishangul-Gumuz	Assosa	Kurmuk	0	0	3	3	6
Addis Ababa	Nefas Silk Lafto	Nefas Silk Lafto Woreda06	0	2	3	3	8
Somali	Doollo	Warder	2	7	0	24	33
Somali	Jarar	Gashamo	5	8	0	2	15
Addis Ababa	Bole	Bole Woreda10	3	1	3	2	9
Addis Ababa	Bole	Bole Woreda14	4	1	2	2	9
Addis Ababa	Gulele	Gulele Woreda03	7	4	5	2	18
Somali	Doollo	Warder Hospital	0	0	0	15	15
Addis Ababa	Chirkos	Kirkos Woreda06	2	2	1	1	6
Somali	Faafan	Aw-Bare	5	0	0	0	5
Amhara	Gonder Town	Gonder Town	1	0	5	0	6
Somali	Korahe	Kudunbur	-	5	1	0	6
Oromia	Shashamane Town	Shashamane Town	5	0	0	0	5
Somali	Korahe	Shilabo	9	18	11	0	38
Addis Ababa	Bole	Bole Woreda12	1	3	1	0	5
Somali	Doollo	Bokh	3	1	3	-	7
Grand Total			61	83	87	92	323

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

12. Suspected Neonatal Tetanus

During the week a total of one suspected case from Siraro woreda of West Arsi Zone, Oromia Region and one death from Basketo Town of SNNP Region were reported.

13. Rabies Exposure

A total of 107 exposure cases with two deaths were reported during the week which was 20.2% (17 exposure cases) higher than the last week exposure cases.

Table 7: Distribution of suspected rabies exposure cases and deaths by reporting sites, week 16 of 2018, Ethiopia.

Region	Zone	Reporting sites	Suspected exposure cases	Death
Tigray	Eastern Tigray	Adi Girat Town	15	0
Tigray	Central Tigray	Ahiferom	15	0
Tigray	North Western Tigray	Shiraro Town	13	0
Amhara	Gonder Town	Gonder Town	12	0
Amhara	West Gojjam	Finote Selam Hospital	8	0
Tigray	South Tigray	Maychew Town	6	0
Tigray	North Western Tigray	Shire Enida Silase Town	6	0
Benishangul-Gumuz	Kamashi	Agalometi	4	0
Tigray	Mekele Especial Zone	South & North Mekele	3	0
Tigray	Eastern Tigray	Wekero Town	3	0
Amhara	Bahir Dar Liyu Town	Bahir Dar Town	2	0
Tigray	Western Tigray	Humera Town	2	0
Oromia	Qeleme Wellega	Seyo	2	0
Tigray	Central Tigray	Abiyi Adi Town	1	0
Tigray	Central Tigray	Akisum Town	1	0
Tigray	North Western Tigray	Asegede Tsimbila	1	0
Benishangul-Gumuz	Assosa	Assosa Hospital	1	0
Benishangul-Gumuz	Assosa	Bambasi	1	0
Amhara	North Shewa	Debrebrehan Hospital	1	0
Amhara	North Gondar	Gendawuha	1	1
Oromia	Bale	Ginir Town	1	0
SNNPR	South Omo	Hamer	1	0
Benishangul-Gumuz	Maokomo Special	Maokomo	1	0
Tigray	Western Tigray	Qafta Humera	1	0
Amhara	North Gondar	Tach Armacho	1	0
Benishangul-Gumuz	Kamashi	Yaso	1	0
Addis Ababa	Chirkos	Kirkos Woreda08	1	0
Addis Ababa	Kolfe Keraniyo	Kolfe Keraniyo Woreda04	1	0
Addis Ababa	Yeka	Yeka Woreda07	1	0
SNNPR	Kembata Tembaro	Tembaro	0	1
Grand Total			107	2



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14. Maternal Death

During the week a total of 23 maternal deaths were reported from 22 reporting sites of Oromia Region (11 deaths), Amhara Region (7 deaths), SNNP Region (2 deaths), Addis Ababa (2 deaths) and Tigray Region (1 death).

Table 8: Distribution of maternal deaths by reporting sites, week 16 of 2018, Ethiopia.

Region	Zone	Reporting sites	Death
Amhara	Wag Himra	Dehena	2
Oromia	West Guji	Abaya	1
Oromia	Adama Special Town	Adama Town	1
Oromia	Qeleme Wellega	Anfilo	1
Oromia	West Wellega	Babo Gembel	1
Amhara	West Gojjam	Bahir Dar Zuriya	1
Oromia	North Shewa	Dera	1
Amhara	South Gonder	Unkown xxx	1
Oromia	West Arsi	Dodola Rural	1
Oromia	West Guji	Dugda Dawa	1
Amhara	East Gojjam	Enemay	1
Addis Ababa	Chirkos	Gandi Mem Hos[pital	1
Oromia	West Hararge	Gelemso Hospital	1
Oromia	West Hararge	Gemechis	1
Oromia	East Hararge	Haromaya Hospital	1
Tigray	North Western Tigray	Laelay Adiabo	1
Oromia	Bale	Legehida	1
Amhara	North Shewa	Menze Mama Mider	1
SNNPR	Siliti	Silite	1
Amhara	South Wollo	Tenta	1
SNNPR	Sidama	Wensho	1
Addis Ababa	Addis Ketema	Addis Ketema Woreda06	1
Oromia	West Arsi	Dodola Hospital	1
	Grand Total		23

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 ongoing in some woredas (not declared over yet) of Tigray Region and Somali Region and no case was reported during the week.

Rumor collection through toll free phone, 8335 and new PHEOC E-mail, ephieoc@gmail.com in addition to daily case and death due to AWD report collection from the affected areas is maintained at the PHEOC.



V. Other Activities

1. National Action Plan for Health Security Costing Exercise

Ethiopian Public Health Institute's Public Health Emergency Management has organized and led National Action Plan for Health Security costing exercise workshop in collaboration with WHO in Bishoftu Town from 30th April to 2nd May, 2018. Participants of the workshop were from the following sectors: FMOH, EPHI, Ministry of Livestock and Fishery, Ethiopian Radiation Protection Authority, EFMHACA, NAHDIC, Federal Police, Ministry of Defense, WHO AFRO, WHO Head Quarter, PHE England, and US-CDC.

2. MDSR System Evaluation Protocol Development

A workshop was conducted in Adama Town from April 27-29, 2018 with the support of UNFPA to develop maternal death surveillance and response system evaluation protocol to evaluate the existing MDSR platform, to identify gaps and challenges for better integration of newly developed perinatal death surveillance and response.

3. 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 their respective regional weekly surveillance data and data managers of EPHI-PHEM for compiling all regional surveillance data and all national PHEM officers for their close follow-up and sharing updates. Additionally, EPHI-PHEM would like to extend its gratitude to FMOH, PFSA, EFMHACA, NAHDIC, Ministry of Livestock and Fishery, Ethiopian Radiation Protection Authority, Ministry of Defense, Federal Police, different directorates of EPHI, US CDC, African CDC, WHO, UNICEF, PHE UK, and The Carter Center.



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