Liberia IDSR Epidemiology Bulletin
2018 Epi Week 1 (January 1-7, 2018)

Highlights

Figure1. Public Health Events Reported in Epi-week 1
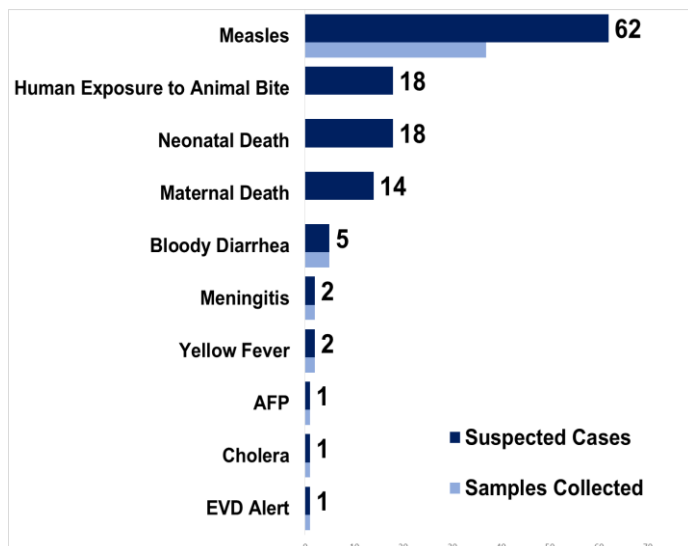
Keynotes and Events of Public Health Significance

- A total of **124** suspected cases of immediately reportable diseases and events including **35 deaths** were reported from **15 counties**

- Health facility reporting **completeness and timeliness are 98%** respectively.

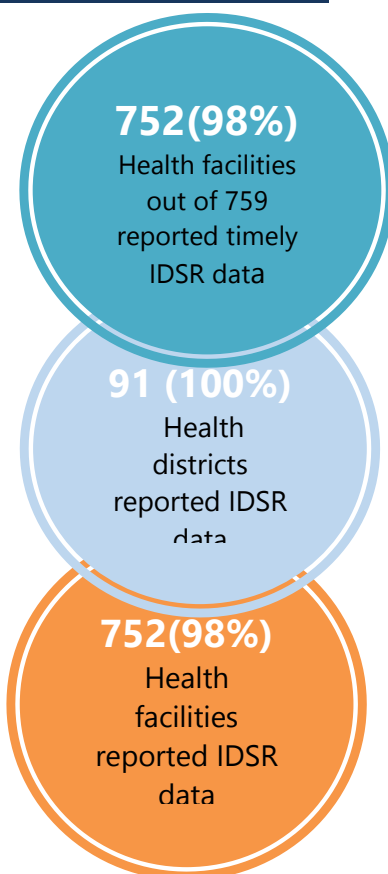- **Two suspected deaths** of measles were reported

Reporting Coverage

Table 1. Weekly IDSR Reporting Coverage, Liberia, Epi week 1, 2018

County	Number of Expected Report from Health Facility	Number of Reports Received	Number Received on Time	Completeness (%)	Timeliness (%)
Bomi	26	26	26	100	100
Bong	55	49	49	89	89
Gbarpolu	15	15	15	100	100
Grand Bassa	33	33	33	100	100
Grand Cape Mount	34	34	34	100	100
Grand Gedeh	24	24	24	100	100
Grand Kru	19	19	19	100	100
Lofa	59	59	59	100	100
Margibi	44	44	44	100	100
Maryland	25	25	25	100	100
Montserrado	283	279	279	99	99
Nimba	74	72	72	97	97
Rivercess	19	19	19	100	100
River Gee	19	19	19	100	100
Sinoe	35	35	35	100	100
Liberia	**764**	**752**	**752**	**98**	**98**
Legend	**≥80**	**<80**			

752(98%) Health facilities out of 759 reported timely IDSR data

91 (100%) Health districts reported IDSR data

752(98%) Health facilities reported IDSR data

- *Twelve counties submitted weekly IDSR report on time*
- *The national target for weekly IDSR reporting is 80%*

Vaccine Preventable Diseases

Measles

- Sixty- two (62) suspected cases were reported from Montserrado (28), Nimba (18), Gbarpolu (7), Grand Bassa (6) Bong (2) and Grand Gedeh (1) Counties.
- Of the total reported cases, samples were collected for 37 and sent to the National Reference Laboratory for testing
- Two suspected deaths were reported from District #2, Grand Bassa and Bokonu District, Gbarpolu Counties
- Elven (11) cases have been confirmed positive from the following Districts:
  Montserrado County (Commonwealth – 4, Bushrod Island – 3, Somalia Drive– 2)
  Bong County (Jorquelleh-1)
  Grand Bassa (District #3 A&B-1)
- Out of the suspected cases reported this week, thirty-seven (60%) were <5 years and 25 (40%) were ≥5 years
- Of the suspected cases reported, 23(37%) were reported to have been previously vaccinated, and 39 (63 %) had unknown vaccination status
- Cumulatively, since Epi week one, 62 suspected cases have been reported and have been classified as follow: 11 are laboratory confirmed, 25 epi-linked, 7 compatible, 1 iscarded and 18 pending arrived at National Reference lab.

Public Health Actions

- Case management initiated for all the suspected cases and community engagement ongoing

Figure 2. -classification of measles cases reported, Liberia, Epi weeks 1, 2018 (n=62)
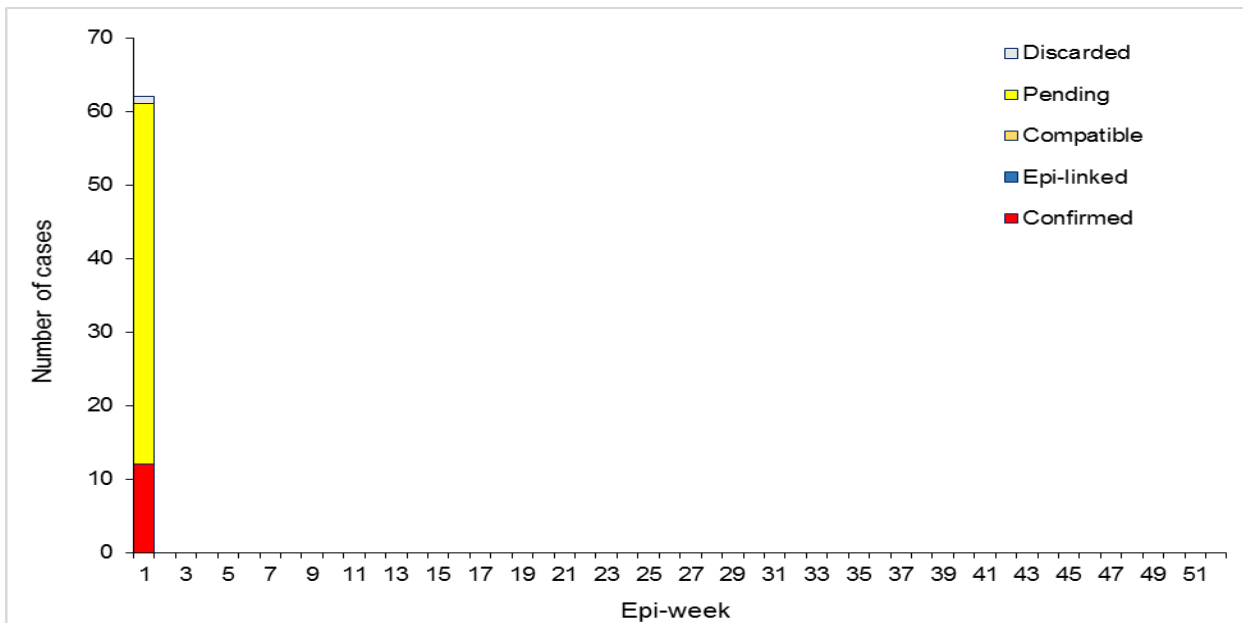
Acute Flaccid Paralysis (Suspected Polio)

- One suspected case of Acute Flaccid Paralysis was reported from Grand Bassa County
- Cumulatively, since Epi week one, 1 Acute Flaccid Paralysis case have been reported

Table 1. Non-polio AFP rate/100,000 <15yrs in 2018 as of Week 1								
County	< 15 years pop	# Of AFP Cases Reported	Number of cases with lab result	Non-Polio AFP Rate	Number of cases <14 days specimen collected	% of stool <14days	Number of NPENTs	% of NPENT
Bomi	46598	0	0	0.0	0	#DIV/0!		#DIV/0!
Bong	184731	0	0	0.0	0	#DIV/0!		#DIV/0!
Gbarpolu	46193	0	0	0.0	0	#DIV/0		0%
Grand Bassa	122807	1	0	42.3	1	100%		#DIV/0!
Grand Cape Mount	70393	0	0	0.0	0	#DIV/0!		#DIV/0!
Grand Gedeh	69386	0	0	0.0	0	#DIV/0!		#DIV/0!
Grand Kru	32081	0	0	0.0	0	#DIV/0!		0%
Lofa	153368	0	0	0.0	0	#DIV/0!		#DIV/0!
Margibi	116287	0	0	0.0	0	#DIV/0!		#DIV/0!
Maryland	75303	0	0	0.0	0	#DIV/0!		#DIV/0!
Montserrado	619449	0	0	0.0	0	#DIV/0!		#DIV/0!
Nimba	255939	0	0	0.0	0	#DIV/0!		#DIV/0!
Rivercess	36998	0	0	0.0	0	#DIV/0!		#DIV/0!
River-Gee	39613	0	0	0.0	0	#DIV/0!		#DIV/0!
Sinoe	56719	0	0	0.0	0	#DIV/0!		0%
Liberia	1925865	1	0	5.4	1	100%		#DIV/0!
Non-Polio AFP Rate	<2 =		Stool adequacy	<80% =		Non-Polio Enterovirus	<10% =	
	≥ 2 =			≥80% =			≥10% =	
Silent								

Neonatal Tetanus

- Zero case of Neonatal tetanus was reported this week.
- Cumulatively, since Epi-week one, 0 clinically diagnosed case has been reported

Viral Hemorrhagic Diseases
Ebola Virus Disease (EVD)

- One EVD alert was reported from Lofa (1) County
- Cumulatively, since Epi-week one, 1 EVD alert has been reported and tested negative

Lassa fever

- Zero suspected case of Lassa fever was reported this week
- Cumulatively, since Epi-week one, 0 suspected case has been reported

Yellow fever

- Two suspected cases of Yellow Fever were reported from Montserrado (1) and RiverGee (1) Counties.
- Cumulatively, since Epi-week one, 2 suspected cases have been reported of which 1 tested negative and 1 pending arrival at the National Reference Laboratory (NRL)

Meningitis

- Two suspected cases of meningitis were reported from Nimba (2) County.
- Cumulatively, since Epi-week one, 2 suspected cases have been reported all tested negative

Events of Public Health Importance

Maternal Mortality

- Fourteen maternal deaths were reported from Montserrado (5), Nimba (2), Gbarpolu (2), Lofa (2), Bomi (1), Bong (1) and Rivercess (1) Counties
- Reported causes of death were: Post-partum hemorrhage, respiratory failure, congested heart failure, septicemia, renal failure, rupture ectopic, anemia, septic abortion and eclampsia
- The eleven deaths was reported to have occurred in the health facility and three occurred in the community
- Cumulatively, since Epi-week one, 14 maternal deaths have been reported (see Table 3 for causes of death)

Table 2. Cumulative Maternal Deaths Reported by Counties, Liberia, Epi weeks 1, 2018

County	Annual Live birth 4.3% (EPI 2018)	Current week	Cumulative	% of Cumulative Maternal deaths	Annualized Maternal Mortality Ratio
Grand Bassa	11494	0	0	0	0
Maryland	7048	0	0	0	0
Bomi	4361	1	1	7.1	1192
Grand Kru	3002	0	0	0	0
Sinoe	5308	0	0	0	0
River Gee	3707	0	0	0	0
Montserrado	57974	5	5	35.7	448
Bong	17289	1	1	7.1	301
Margibi	10883	0	0	0	0
Nimba	23953	2	2	14.3	434
Lofa	14354	2	2	14.3	725
Rivercess	3463	1	1	7.1	1502
Gbarpolu	4323	2	2	14.3	2406
Grand Cape Mount	6588	0	0	0	0
Grand Gedeh	6494	0	0	0	0
Liberia	*180242*	*14*	14	100	**404**

Number of live birth is at 4.3% of the estimated population for 2018 (Source: EPI/MoH)

Table 3. Causes of Maternal Death, Liberia, Epi weeks 1, 2018 (n=14)

Maternal Death	Frequency	Percent (%)
Respiratory failure	1	7.1
Congested heart failure	1	7.1
Septicemia	1	7.1
Rupture ectopic	1	7.1
Post-partum hemorrhage	2	14.3
Renal failure	2	14.3
Anemia	2	14.3
Septic abortion	2	14.3
Eclampsia	2	14.3
Total	**14**	**100**

Neonatal Mortality

Eighteen Neonatal deaths were reported from Montserrado (6), Bong (3), Nimba (3) Gbarpolu (2), Grand Bassa (1), Maryland (1), Bomi (1) and Grand Gedeh (1), Counties

- Causes of death were birth asphyxia (8), neonatal sepsis (3), anemia (3), fetal distress (1), respiratory distress (1) prematurity (1) and aspiration pneumonia (1)
- Fourteen of the deaths were reported to have occurred at health facility and four in the community
- Cumulatively, since Epi week one, 18 neonatal deaths have been reported

Table 4. Cumulative Neonatal Deaths Reported by Counties, Liberia, Epi weeks 1, 2018

County	Annual Live birth 4.3% (EPI 2018)	Current Week	Cumulative Neonatal deaths	% of Cumulative Neonatal deaths	Annualized Neonatal Mortality Rate
River Gee	3707	0	0	0	0.0
Maryland	7048	1	1	6	7.4
Sinoe	5308	0	0	0	0.0
Grand Kru	3002	0	0	0	0.0
Montserrado	57974	6	6	33	5.4
Bong	17289	3	3	17	9.0
Rivercess	3463	0	0	0	0.0
Grand Gedeh	6494	1	1	6	8.0
Gbarpolu	4323	2	2	11	24.1
Grand Bassa	11494	1	1	6	4.5
Lofa	14354	0	0	0	0.0
Nimba	23953	3	3	17	6.5
Margibi	10883	0	0	0	0.0
Grand Cape Mount	6588	0	0	0	0.0
Bomi	4361	1	1	6	11.9
Total	**180242**	**18**	**18**	**100**	**5.2**

Human Exposure to Animal Bites (Suspected Rabies)

- Eighteen events of animal bites were reported from Margibi (6), Grand Bassa (4), Bong (2), Grand Kru (2), Montserrado (1), Rivercess (1), River Gee (1) and Grand Gedeh (1) Counties
- Cumulatively, since Epi-week one, 18 events of animal bites have been reported

Bloody Diarrhea (Shigellosis)

- Five suspected cases of acute bloody diarrhea were reported from Margibi (3), Sinoe (1), Montserrado (1) Counties
- Cumulatively, since Epi-week one, 5 cases of acute bloody diarrhea have been reported of which four tested negative and one pending transport to the laboratory

Severe Acute Watery Diarrhea (Cholera)

- One suspected case of cholera was reported from Rivercess County
- Cumulatively, since Epi-week one, 1 suspected case of cholera has been reported and tested negative

Public Health Measures

National Level:

- Providing technical guidance for outbreak, investigation and response to all affected counties
- Providing operational and financial support

County level:

- Activated IMS to assess outbreak trends, mobilizes resources and monitor progress of implementation for measles response activities (Montserrado County)
- Multi-disciplinary rapid response team involving the County Health Team, District Rapid Response Team, NPHIL and partners
- Mini re-active measles campaign is being schedule for January 12-15, 2018 (Montserrado County)
- Case management initiated for all suspected cases and community engagement ongoing
- Active case search and contact tracing have been initiated in affected Counties
- Radio talk show have been initiated for scabies across the nation

Notes

- *Completeness* refers to the proportion of expected weekly IDSR reports received (target: ≥80%)
- *Timeliness refers to the* proportion of expected weekly IDSR reports received by the next level on time (target: ≥80%). Time requirement for weekly IDSR reports:
  - Health facility - required on or before 5:00pm every Saturday to the district level
  - Health district - required on or before 5:00pm every Sunday to the county level
  - County - required on or before 5:00pm every Monday to the national level
- *Non-polio AFP rate* is the proportion of non-polio AFP cases per 100,000 among the estimated population under 15 years of age in 2017 (annual target: ≥2/100,000)
- *Non-measles febrile rash illness rate* refers to the proportion of discarded measles cases per 100,000 population

- *Annualized maternal mortality rate* refers to the maternal mortality rate of a given period less than one year and it is the number of maternal deaths per 100,000 live births
- *Annualized neonatal mortality rate* refers to the neonatal mortality ratio of a given period less than one year and it is the number of maternal deaths per 1,000 live births
- *Epi-linked* refers to any suspected case that has not had a specimen taken for serologic confirmation but is linked to a laboratory confirmed case
- *Confirmed case* refers to a case whose specimen has tested positive or reactive upon laboratory testing, or has been classified as confirmed by either epidemiologic linkage with a confirmed case, or clinical compatibility with the disease or condition
- *Case Fatality Rate (CFR)* is the proportion of deaths among confirmed cases

Liberia IDSR Epidemiology Bulletin

2017 Epi Week 51 (December 18-24, 2017)

Appendix 1: Summary of immediately reportable diseases, conditions, and events by County during Epi week 1 and cumulative reports, Liberia, 2018

Counties	No. of Health Districts	No. of Health District reported	Acute Flaccid Paralysis (Polio)		Acute Bloody Diarrhoea (Shigellosis)		Severe Acute Watery Diarrhoea (Cholera)		Human Exposure to Animal bites (Suspected Rabies)		Lassa Fever		Measles		Meningitis		Maternal Mortality	Neonatal Mortality	Neonatal Tetanus		VHF (including EVD)		Yellow Fever		Other Diseases/Events	
			A	D	A	D	A	D	A	D	A	D	A	D	A	D	D	D	A	D	A	D	A	D	A	D
Bomi	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Bong	8	8	0	0	0	0	0	0	2	0	0	0	2	0	0	0	1	3	0	0	0	0	0	0	0	0
Gbarpolu	5	5	0	0	0	0	0	0	0	0	0	0	6	1	0	0	2	2	0	0	0	0	0	0	0	0
Grand Bassa	8	8	1	0	0	0	0	0	4	0	0	0	5	1	0	0	0	1	0	0	0	0	0	0	0	0
Grand Cape Mount	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Gedeh	6	6	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Grand Kru	5	5	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lofa	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0
Margibi	4	4	0	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maryland	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Montserrado	7	7	0	0	1	0	0	0	1	0	0	0	28	0	0	0	5	6	0	0	0	0	1	0	0	0
Nimba	6	6	0	0	0	0	0	0	0	0	0	0	18	0	2	0	2	3	0	0	0	0	0	0	0	0
Rivercess	6	6	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
River Gee	4	4	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Sinoe	10	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Weekly	**91**	**91**	**1**	**0**	**5**	**0**	**1**	**0**	**18**	**0**	**0**	**0**	**60**	**2**	**2**	**0**	**14**	**18**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**
Cumulative Reported			1	0	5	0	1	0	18	0	0	0	60	2	2	0	14	18	0	0	1	0	2	0	0	0
Cumulative Laboratory Confirmed			0	0	0	0	0	0	0	0	0	0		0	0	0			0	0	0	0	0	0	0	0

Note: **A** = Alive   **D** = Dead

National Public Health Institute of Liberia (NPHIL)

PURPOSE

In collaboration with the Ministry of Health, NPHIL strengthens existing infection prevention and control efforts, laboratories, surveillance, infectious disease control, public health capacity building, response to outbreaks, and monitoring of diseases with epidemic potential.

OUR MISSION

To prevent and control public health threats by promoting healthy outcomes and serving as a source of knowledge and expertise.

GOALS

Contribute to the development and sustainability of the public health workforce
Develop, enhance, and expand the surveillance and response platform
Develop and strengthen the laboratory system and public health diagnostics
Develop, enhance, and expand process and structures to protect environmental and occupation health
Expand, conduct, and coordinate public health and medical research to inform Liberian public health policies
Ensure sustainable financing and operations of the NPHIL

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