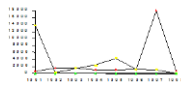


WEB 21



REPUBLIC OF GHANA



WEEKLY EPIDEMIOLOGICAL BULLETIN

Ghana Health Service / Ministry of Health

For Week 21 of 2014 (Week ending 25<sup>th</sup> May, 2014)



**Highlights of the week:**

- ➔ Timeliness and completeness of reporting by regions for the week were both 100%.
- ➔ Countdown to Assessment for Guinea Worm Free Certification in Ghana. 7<sup>th</sup> to 25<sup>th</sup> July 2014 is the assessment period; and June 2014 has been declared National Guinea Worm Month.

**Editorial Board**

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**1.0 INTRODUCTION**

This bulletin is a summary of reported cases of epidemic prone diseases, and other priority conditions/events of national and international concern within the framework of the Second Edition Integrated Disease Surveillance and Response (IDSR). Case fatality and attack rates of these events are calculated, and comparative analysis made. Outbreaks (epidemics) and responses that occurred during the reporting period are also discussed and recommendations made. Regions are compared and ranked on timeliness and completeness rates of reporting and on other indicators. The primary objective is to give regular feedback to regions and districts, and also provide epidemiologic data to other stakeholders for action.

**2.0 TIMELINESS AND COMPLETENESS OF REPORTING**

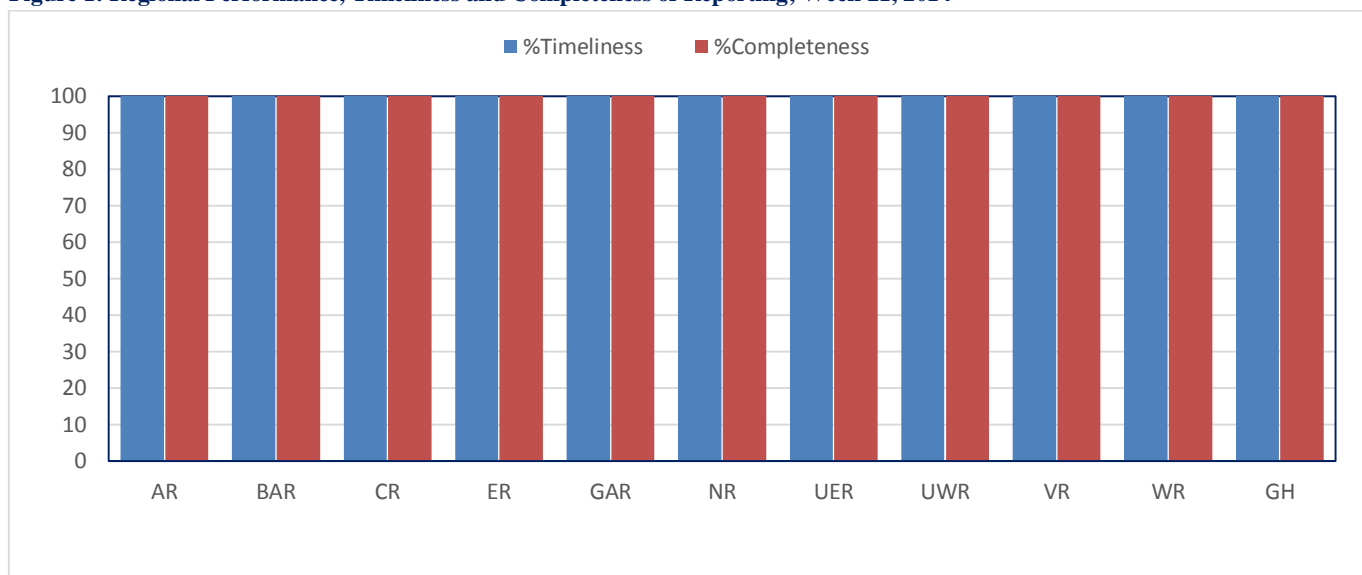
Timeliness and completeness rates of reporting for week under review were both 100%. All regions submitted their reports timely and completely. We commend regions for this performance.

Table 1: Timeliness and Completeness of Reporting from Regions, Week 21, 2014

Region	No of Districts	Assessment of Timeliness: Timely = 100%; Late = 50%; Not Submitted=0%)	Assessment of Completeness (%): = No. of district reports received X 100 / No. of district reports expected
Ashanti	30	T	100
Brong-Ahafo	27	T	100
Central	20	T	100
Eastern	26	T	100
Greater	16	T	100
Northern	26	T	100
Upper East	13	T	100
Upper West	11	T	100
Volta	25	T	100
Western	22	T	100
<b>National</b>	<b>216</b>	<b>100%</b>	<b>100%</b>

Key: T=Timely L=Late N=Report Not Received

**Figure 1: Regional Performance, Timeliness and Completeness of Reporting; Week 21, 2014**



### 3.0 REGIONAL RANKING BASED ON REPORTING<sup>1</sup>

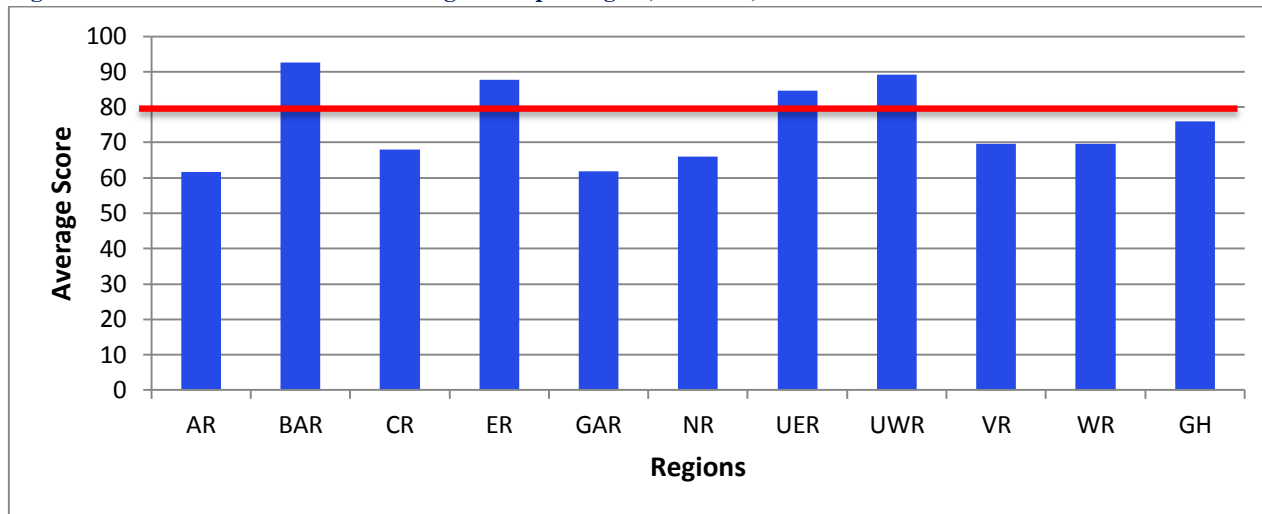
During the week under review, overall performance of the regions improved as compared to the previous week and ranged between 61.7% for Ashanti region and 92.6% for Brong-Ahafo region.

**Table 2: Ranking of Regional Performance, Week 21 of 2014**

Region	Timeline ss (%) Week 21 <b>A</b>	Completeness (%) Week 21 <b>B</b>	AFP			Measles	YF	Average Score % (A+B+C+D+E)/5	Rank
			Total AFP Cases Week 01--21	Annualized Non-Polio AFP Rate	Score (%) <b>C</b>	% District reporting <b>D</b>	% District reporting <b>E</b>		
Brong-Ahafo	100	100	55	11.65	100	81.5	81.5	92.6	1st
Upper West	100	100	13	8.57	100	81.8	63.6	89.1	2nd
Eastern	100	100	16	2.68	100	96.2	42.3	87.7	3rd
Upper East	100	100	7	3.22	100	61.5	61.5	84.6	4th
Volta	100	100	11	2.27	100	28.0	20.0	69.6	5th
Western	100	100	10	1.60	80	40.9	27.3	69.6	6th
Central	100	100	9	1.90	95	30.0	15.0	68.0	7th
Northern	100	100	11	1.91	95	23.1	11.5	65.9	8th
Greater-Accra	100	100	14	1.43	72	31.3	6.3	61.9	9th
Ashanti	100	100	13	1.11	55	40.0	13.3	61.7	10th
<b>Ghana</b>	<b>100</b>	<b>100</b>	<b>159</b>	<b>2.90</b>	<b>100</b>	<b>50.5</b>	<b>29.2</b>	<b>75.9</b>	

<sup>1</sup> The criteria for regional ranking are based on average score by regions as per the Percentage Timeliness and Completeness of Reporting, Annualized Non-Polio AFP Rate, Percentage Districts reporting at least a case of suspected Measles and suspected Yellow Fever since the beginning of the year.

Figure 2: Surveillance Performance Average Score per Region; Week 21, 2014



#### 4.0 WEEKLY EPIDEMIOLOGICAL SITUATION; CASES AND DEATHS-WEEK 21

Table 3: Summary of Reported Cases/ Events: Week 21 (Week ending 25<sup>th</sup> May 2014)

Disease/ Health Event (suspected/confirmed)	Week 20			Week 21			Cum Week 01—21		
	Cases (Susp.)	Deaths	CFR (%)	Cases (Susp.)	Deaths	CFR (%)	Cases (Susp.)	Deaths	CFR (%)
1 AFP (Suspected Polio)	8	0	0	7	0	0	159	0	0
2 Acute Haemorrhagic Fever Syndrome	0	0	-	0	0	-	4	0	0
3 Adverse Events following Immunization	2	0	-	0	0	-	21	0	0
4 Anthrax	0	0	-	0	0	-	8	7	85.7
5 Acute watery diarrhoea in > 5 years	352	0	0	253	0	0	5,671	0	0
6 Cholera	0	0	-	0	0	-	0	0	-
7 Dengue fever	0	0	-	0	0	-	0	0	-
8 Diarrhoea with blood	148	0	0	121	0	0	2,644	0	0
9 Dracunculiasis (Guinea Worm)	1	0	0	0	0	0	9	0	0
10 Influenza-Like Illness	124	0	0	166	0	0	2,910	0	0
11 Measles	16	0	0	23	0	0	483	0	0
12 Meningitis	10	1	10.0	9	0	-	367	29	7.9
13 Neonatal Tetanus	0	0	-	0	0	-	2	1	50
14 Plague	0	0	-	0	0	-	0	0	-
15 Public Health Event of International Concern (PHEIC)	0	0	-	0	0	-	0	0	-
16 Human Rabies	1	0	0	5	1	20.0	26	13	50.0
17 SARS	0	0	-	0	0	-	0	0	-
18 Small Pox	0	0	-	0	0	-	0	0	-
19 Yellow fever (Suspected)	17	0	0	7	0	0	226	2	0.9
<b>NATIONAL TOTAL</b>	<b>679</b>	<b>1</b>	<b>0</b>	<b>591</b>	<b>1</b>	<b>0</b>	<b>12,552</b>	<b>52</b>	<b>0.4</b>

**Comments:** The total all-cause weekly notifiable diseases morbidity for the week (as per Weekly Summary Reporting Form) was 591 cases with one (1) death. This represents a decrease of 12.1% in the number of cases detected compared to the previous week. Acute watery diarrhoea above 5 years constituted the highest proportion of cases (42.8%) No case of Acute Haemorrhagic Fever Syndrome was reported.

#### 4.1.0 DRACUNCULIASIS (GUINEA WORM)

During the week under review, one (1) suspected case of Guinea worm was reported from Berekum in the Brong-Ahafo region. One case was reported the previous week. Further investigations indicated that cases were not Guinea Worm.

#### 4.1.1 COUNT DOWN TO ASSESSMENT FOR GUINEA WORM FREE CERTIFICATION

Ghana is close to be assessed for Guinea Worm free certification after the country has provided evidence of having broken transmission of the disease since 2010. From the initial case load of 179,556 cases based on the nationwide case search conducted in 1989 as in Table 1, Ghana reported the last case of *Dracunculus medinensis* (Guinea worm) in May, 2010 (Fig 1). In this regard, Ghana entered the Pre-Certification stage of the Eradication Process.

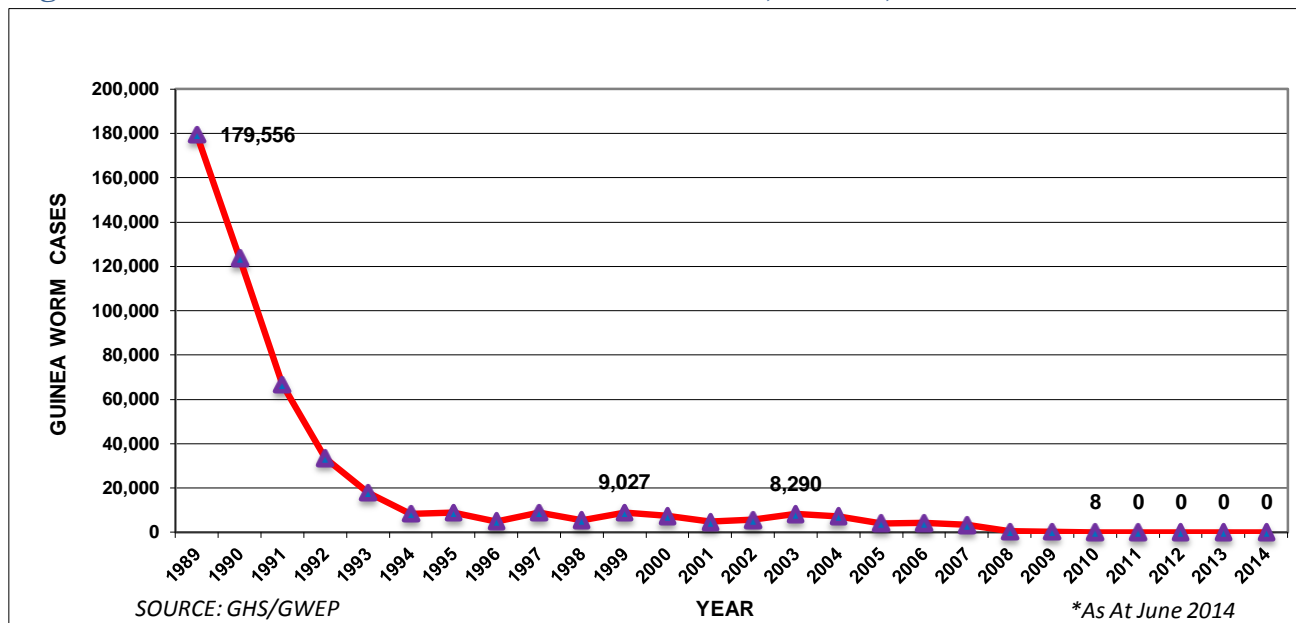
#### Progress towards Breaking Guinea Worm Transmission, Ghana; 1989-2014

The progress towards achievement of interruption of Guinea worm transmission (Table 4 and Figure 3) shows the number of communities reporting Guinea worm cases as well as regional distribution of Guinea worm cases in the first case search done in Ghana at 1989; and annual incidence of Guinea worm cases in Ghana from 1989 to 2014.

**Table 4: Number of Guinea Worm Cases and Endemic Communities; 1989 Case Search**

Region	Number of Cases	Number of Communities Reporting
Northern	101,524	2,488
Volta	41,049	1,818
Brong-Ahafo	18,043	675
Central	7,561	260
Eastern	3,751	386
Upper West	3,173	224
Greater Accra	1,856	162
Upper East	1,054	173
Ashanti	982	187
Western	563	142
<b>TOTAL</b>	<b>179,556</b>	<b>6,515</b>

**Figure 3: Annual Incidence of Guinea Worm Cases, Ghana; 1989-2014**



After the mandatory three year period in the Pre-Certification stage, there has not been any report of Guinea worm case despite the intensive search. This has been supported by an Independent External Evaluation conducted in 2011 with follow-up WHO visits in 2012 and 2013. Also nationwide case searches conducted during 2013 NIDs coupled with other focal searches have not identified any case.

The time for certification is now and this will be preceded by an assessment by the International Certification Team who will be in the country from 07 to 25 July 2014.

The Evaluation is to prove that:

1. As a country, beyond all reasonable doubt, there is truly no case of Guinea worm in the country, and that
2. There is a sensitive and reliable surveillance system to detect, report and contain any Guinea Worm case if it should occur

The International Certification Team will visit all regions, randomly select districts, health facilities and communities to assess the following:

- The sensitivity of our surveillance system to detect any case of Guinea worm should it occur in the country
- The level of awareness of health workers and the general public on Guinea Worm Disease and the two hundred Ghana cedi (GH¢200.00) Cash Reward for individuals reporting any hanging worm.
- Access to safe water in communities.

**How do we contribute and support the Guinea Worm Eradication and Certification process?**

- At all levels particularly at the districts and communities, we should heighten awareness on the Guinea Worm Disease and the Cash Reward of GH¢200.00. We need to organize staff durbars, write to and/or visit all Schools, District Assemblies, GPRTU stations, organized groups and organizations, local FMs stations and information centres; talk about Guinea Worm Disease and the Cash Reward.

- At all levels, documentation on Guinea Worm activities must be optimal; keep ARC files which must contain the following organized documents on Guinea worm eradication activities since 1989:
  - ✓ Line list of all formerly endemic villages
  - ✓ Reports on all case searches
  - ✓ Reports on previous containment measures and other response activities
  - ✓ GW Rumour line list (2010-2014)
  - ✓ GW Rumours with investigation forms and narrative reports
  - ✓ Correspondences on Guinea Worm Eradication activities
  - ✓ Schedules of public education
  - ✓ Access to safe water
  - ✓ Weekly and Monthly IDSR Reports (2010-2014)

#### 4.2 ACUTE FLACCID PARALYSIS (AFP)

Seven (7) AFP cases were reported from seven (7) districts in four (4) regions during the week under review (Table 4). Cumulatively, 159 AFP cases have been reported in the country since week 1 (table 4.1). All the stool specimens taken from the cases and investigated at the National Polio Laboratory (NMIMR) tested negative for wild polio virus.

**Table 5: Reported AFP Cases by Region/District – Week 21, 2014**

Region	District	Cases	Deaths
Brong-Ahafo	Asutifi North	1	0
	Asutifi South	1	0
	Atebubu-Amanten	1	0
Eastern	Akwapim North	1	0
	Lower Manya-Krobo	1	0
Upper East	Builsa	1	0
Upper West	Lambussie	1	0
<b>Total</b>		<b>7</b>	<b>0</b>

**Table 5.1: AFP Surveillance Indicators by Region, Ghana; Week 01-21, 2014**

Region	Pop Under 15 yrs	AFP Expected	Reported AFP	AFP Discarded	Annualized Non-polio AFP Rate	Percent Timely stools	Percent Adequate Stools
Ashanti	2,233,539	45	13	10	1.11	84.6	69.2
Brong-Ahafo	1,063,037	21	55	50	11.65	100.0	98.2
Central	1,044,899	21	9	8	1.90	88.9	88.9
Eastern	1,201,790	24	16	13	2.68	93.8	93.8
Greater Accra	1,902,980	38	14	11	1.43	92.9	85.7
Northern	1,167,530	23	11	9	1.91	90.9	90.9
Upper East	461,030	9	7	6	3.22	100.0	100.0
Upper West	317,944	6	13	11	8.57	100.0	100.0
Volta	982,025	20	11	9	2.27	81.8	81.8
Western	1,080,190	22	10	7	1.60	90.0	80.0
<b>Ghana</b>	<b>11,454,964</b>	<b>229</b>	<b>159</b>	<b>134</b>	<b>2.90</b>	<b>94.3</b>	<b>91.2</b>

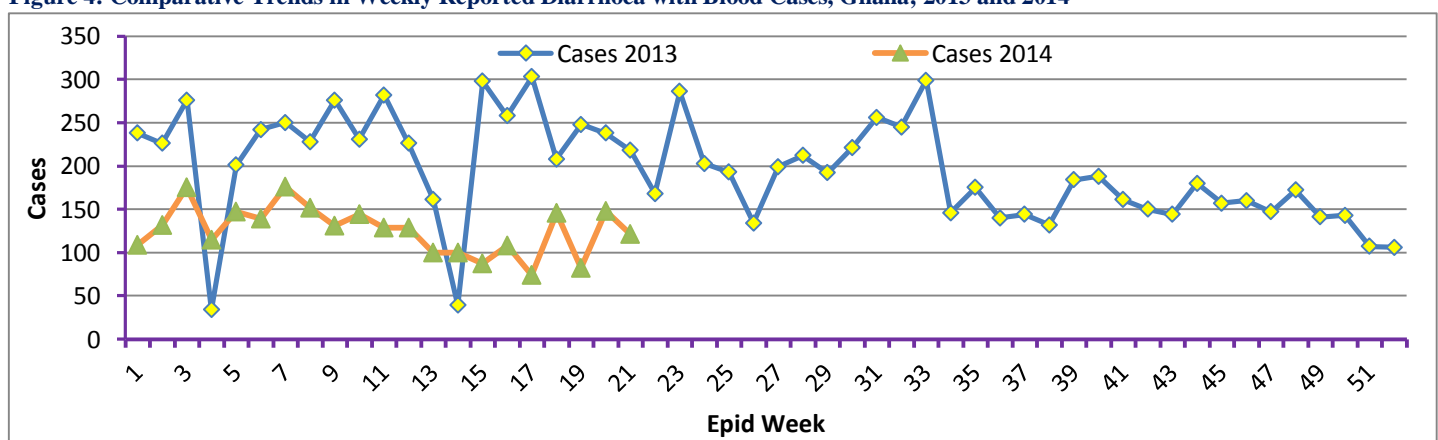
### 4.3 DIARRHOEA WITH BLOOD

A total of 121 cases of Diarrhoea with blood, (no death) were reported from 26 districts in five (5) regions. No stool specimens were taken for laboratory investigation. Without identification of the causative agent(s), bloody diarrhoea surveillance cannot be complete. Thus, regions are implored to respond to the continued call on their support for districts to take stools for agent identification.

**Table 6: Reported Cases of Diarrhoea with Blood by Region/District – Week 21, 2014**

Region	District	Cases	Deaths
Ashanti	Afigya-Kwabre	9	0
	Ahafo-Ano South	3	0
	Amansie West	4	0
	Ejura-Sekodumasi	1	0
	Kwabre	2	0
	Obuasi	12	0
	Offinso North	7	0
	Sekyere Central	1	0
	Sekyere-Afram Plains West	3	0
Central	Awutu-Senya West	4	0
	Twifu-Hemang-Lower Denkyira	2	0
Greater Accra	Accra	2	0
	Ga West	4	0
	Kpone- Katamanso	3	0
	Ningo-Prampram	2	0
Upper East	Bawku	1	0
	Bawku West	3	0
	Binduri	4	0
	Bolgatanga	14	0
	Bongo	2	0
	Garu-Tempane	12	0
	Nabdam	2	0
	Pusiga	3	0
Upper West	Jirapa	1	0
	Sissala West	12	0
	Wa	8	0
<b>Total</b>		<b>121</b>	<b>0</b>

**Figure 4: Comparative Trends in Weekly Reported Diarrhoea with Blood Cases, Ghana; 2013 and 2014**



#### 4.4 CHOLERA

No case of Cholera was reported during the week under review and the previous week as indicated in Table 3.

#### 4.5 ACUTE WATERY DIARRHOEA ABOVE 5 YEARS

During Week 21, a total of 253 cases of Acute Watery Diarrhoea above 5 years with no death were reported from 26 districts in four (4) regions (Table 7) as compared to 352 cases with no death reported the previous week. We urge regions and districts to ensure that stool specimens are taken in Cary-Blair media to Public Health Laboratories for testing. This would enable us detect the causative agents early and respond appropriately.

Table 7 shows the distribution of Acute Watery Diarrhoea above 5 years by region and district.

**Table 7: Reported Cases of Acute Watery Diarrhoea above 5 Years by Region and District -Week 21, 2014**

Region	District	Cases	Deaths
Brong-Ahafo	Berekum	22	0
Central	Awutu-Senya West	7	0
	Efutu	3	0
	Twifu-Hemang-Lower Denkyira	15	0
	Atiwa	12	0
	Birim North	3	0
	New Juaben	6	0
Greater Accra	Accra	14	0
	Ga Central	7	0
	Ga South	12	0
	Kpone- Katamanso	30	0
	La Dade-Kotopon	30	0
	Ningo-Prampram	3	0
Upper East	Bawku	2	0
	Bawku West	3	0
	Binduri	10	0
	Bolgatanga	6	0
	Bongo	19	0
	Builsa	5	0
	Builsa South	6	0
	Garu-Tempane	8	0
	Kassena-Nankana	5	0
	Kassena-Nankana West	2	0
	Nabdram	7	0
	Pusiga	9	0
	Talensi	7	0
Total		<b>253</b>	<b>0</b>

#### 4.6 MENINGITIS

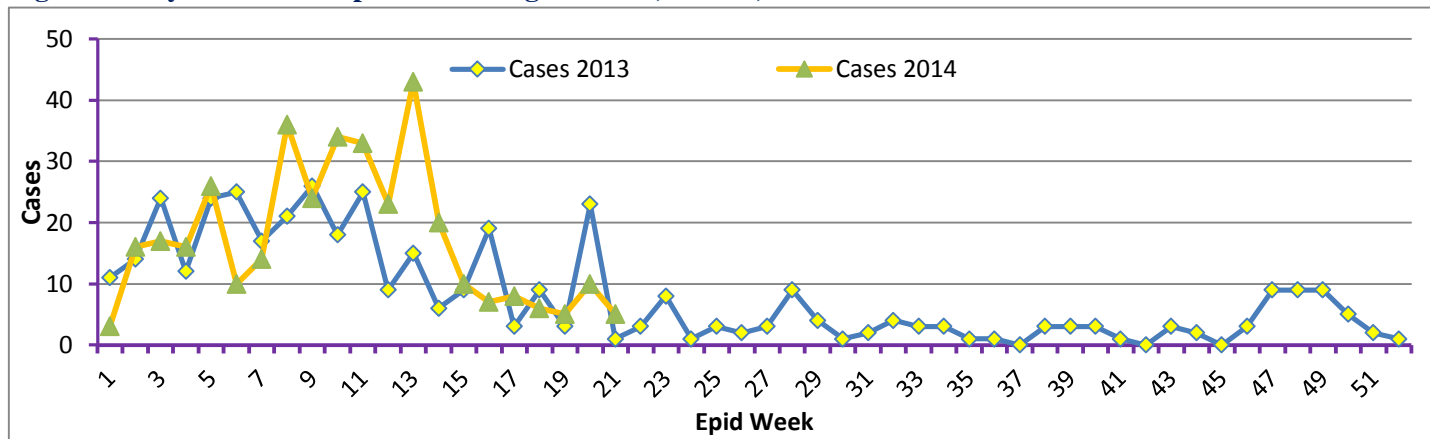
During week 21, nine (9) meningitis cases with no death were reported from six (6) districts in five (5) regions. Lumbar Puncture was done on all the cases, (LP Rate: 100.0%) and one (1) of the CSF investigated using Latex agglutination tested positive for Nm W135 from Kassena-Nankana. Specimens have also been sent to Tamale Public Health Zonal Laboratory for PCR confirmation.

No district reached the alert threshold for meningitis.

Weekly trends in reported meningitis cases / deaths; distribution of cases per district and isolated organisms are as per Fig 5 and Table 8.



**Fig 5: Weekly Trends in Reported Meningitis Cases, Ghana; 2013 and 2014**



**Table 8: Meningitis Laboratory Test (Latex Agglutination and Gram stain) Results –Week 21, 2014**

Districts	No. of Cases	No. CSF	No. CSF positive	Neisseria meningitides						Other Nm (GND)	S. Pneum	H. Inf	Hib	Other Pathogens
				A	B	C	X	Y	W135					
Jirapa	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Nadowli-kaleo	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Asante-Akim Central	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Kassena-Nankana West	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Kassena-Nankana	1	1	1	0	0	0	0	0	1	0	0	0	0	0
<b>TOTAL</b>	<b>5</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**4.7 MEASLES**

During the week under review, 23 suspected Measles cases with no death were reported from 15 districts in seven (7) regions (Table 8). Blood specimens were taken from all the cases and sent to the NPHRL for laboratory investigations.

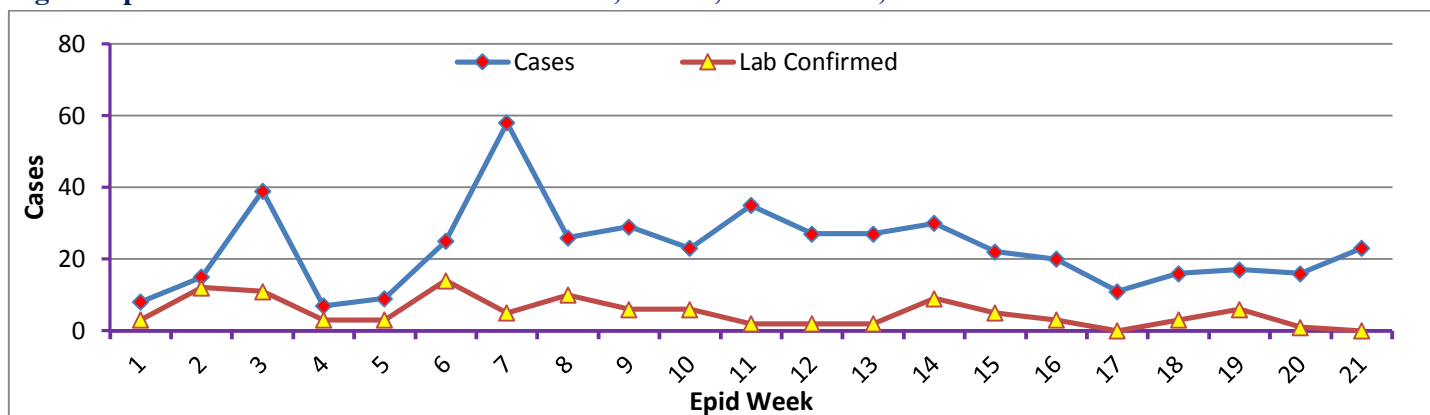
Cumulatively, 483 suspected Measles cases have been reported from 109 districts in all the 10 regions of Ghana since week 1; and 106 (21.9%) have been confirmed as Measles IgM positive. Fig 6 shows the weekly trends in suspected and confirmed cases for week 1-21.

**Table 9: Reported Suspected Measles cases by Region and Districts – Week 21, 2014**

Region	District	Cases	Deaths
Ashanti	Offinso North	1	0
Brong-Ahafo	Atebubu-Amanten	2	0
	Sunyani West	1	0
	Tain	5	0
Eastern	Akyemmansa	1	0
	Kwahu South	1	0
Greater Accra	Accra	1	0
Upper West	Jirapa	1	0
	Lambussie	1	0
	Sissala West	1	0
	Wa	2	0
Volta	Adaklu	1	0

Region	District	Cases	Deaths
	Ho	1	0
	Ketu North	3	0
Western	Sekondi-Takoradi	1	0
<b>Total</b>		<b>23</b>	<b>0</b>

**Fig 6: Reported and confirmed Cases of Measles, Ghana; Week 01-21, 2014**



#### 4.8 YELLOW FEVER

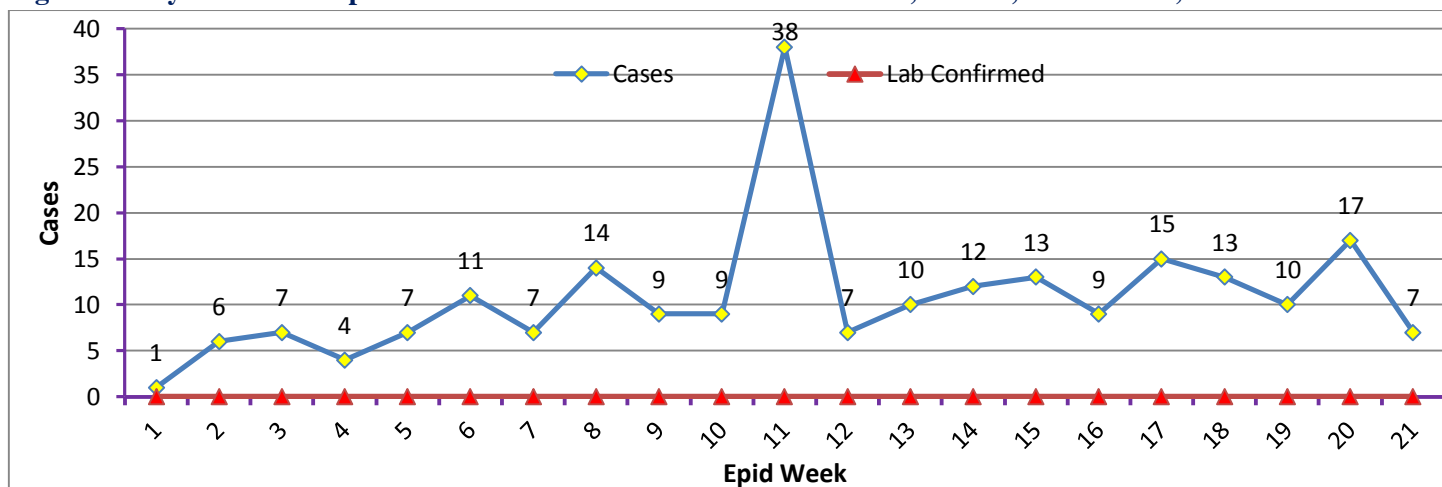
During week 21, seven (7) suspected Yellow Fever cases with no death were reported from five (5) districts in three (3) regions (Table 10). In the previous week, 17 cases with no death were reported.

Fig 7 shows the regional and district distribution of suspected Yellow Fever cases during week 01-21.

**Table 10: Reported Suspected Yellow Fever cases by Region and District – Week 21, 2014**

Region	District	Cases	Deaths
Brong-Ahafo	Asutifi North	2	0
	Sunyani West	1	0
	Tano North	2	0
Eastern	New Juaben	1	0
Western	Axim	1	0
<b>Total</b>		<b>7</b>	<b>0</b>

**Fig 7: Weekly trends in suspected and lab confirmed Yellow Fever cases, Ghana; Week 01-21, 2014**



#### 4.9 HUMAN RABIES

During the week under review five (5) suspected Human Rabies cases with one (1) death were reported from Ashanti (1 case) and Upper West (4 cases) regions. One case with no death was reported in the previous week.

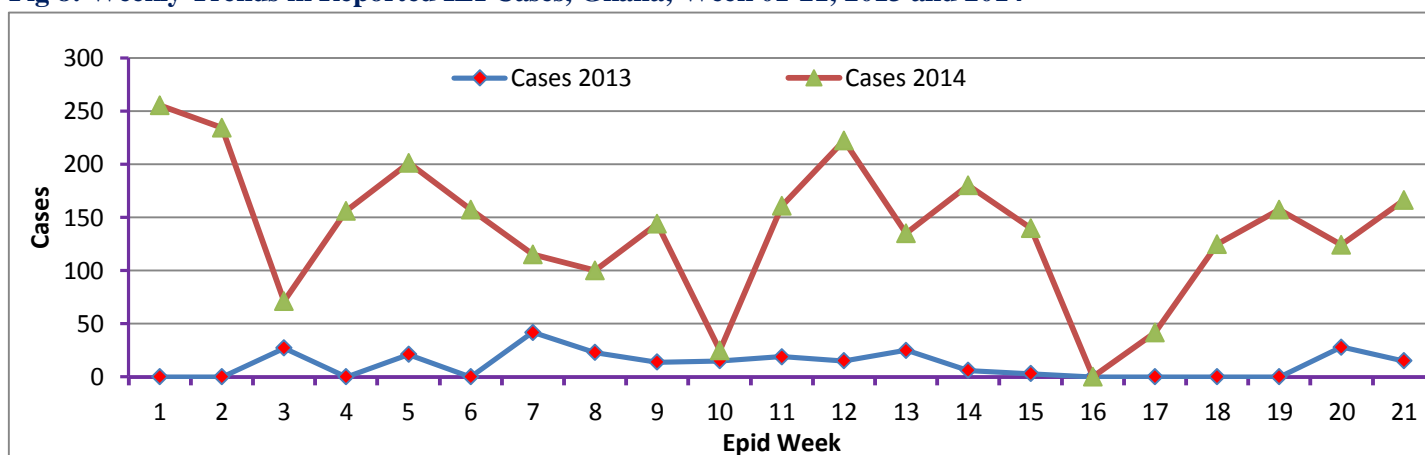
**Table 11: Reported Suspected Yellow Fever cases by Region and District - Week 21, 2014**

Region	District	Cases	Deaths
Ashanti	Ejisu-Juaben	1	0
Upper West	Wa	1	1
	Wa West	3	0
<b>Total</b>		<b>5</b>	<b>1</b>

#### 4.10 INFLUENZA-LIKE ILLNESS (ILI)

During the week under review, 166 cases of ILI were reported through the IDSR weekly reporting system from Ashanti (156 cases) and Eastern (10 cases) regions. In the previous week, 124 cases were reported. Fig 8 shows weekly trends in reported ILI cases.

**Fig 8: Weekly Trends in Reported ILI Cases, Ghana; Week 01-21, 2013 and 2014**



##### 4.10.1 Reports from Influenza Sentinel Sites

During the week, 10 cases were confirmed out of the 43 samples received and processed at the NIC.

Table 12 below shows the distribution of the confirmed influenza cases for weeks 01-21, 2014.

**Table 12: Influenza Types from Sentinel Sites Week 21, 2014**

Epidemiological Weeks	Week 20	Week 21	Cumulative, Weeks 01-21
Specimens Received & Processed	47	43	1,228
A (H1)	0	0	0
Pandemic A (H1N1)	2	0	38
A (H3)	8	9	33
A (H5)	0	0	0
A (Not subtyped)	0	0	0
B	0	1	115
<b>Total Influenza positive</b>	<b>10</b>	<b>10</b>	<b>185</b>

Source: Weekly Report on Influenza, National Influenza Centre; NMIMR

#### 4.11 ANTHRAX

During the week under review, no case of Anthrax (Human or animal) was reported. No case was also reported in the previous week.

#### 4.12 ACUTE HAEMORRHAGIC FEVER SYNDROME

During week 21, no suspected cases of Acute Haemorrhagic Fever Syndrome was reported. All the specimens investigated in the previous week at NMIMR tested negative for Ebola, Marburg and Lassa fever.

#### 4.13 MATERNAL DEATHS

During the week under review, two (2) maternal deaths were reported from Lower Manya-Krobo (1 case) and Wa (1 case). One (1) maternal death was reported in the previous week.

### 5.0 PUBLIC HEALTH EMERGENCY OF INTERNATIONAL CONCERN (PHEIC)

#### 5.1 EBOLA VIRUS DISEASE (EBOLA HAEMORRHAGIC FEVER) OUTBREAK IN GUINEA

The Ministry of Health (MOH) of Guinea reported confirmed outbreak of Ebola Virus Disease in February 2014.

\*Situational updates as of 21 June 2014 are as follows:

- **Guinea:** Cumulative number of 390 Cases, 267 deaths (CFR: 68.5%) have been reported; 258 cases have been laboratory confirmed.
- **Liberia:** Cumulative cases 41 (Suspected/probable & Confirmed cases) 25 deaths (CFR: 61.0%).
- **Mali:** As of 23 April, 2014 laboratory results from all six suspected cases in Mali were negative for EVD. No new suspected cases have been reported to date.
- **Sierra Leone:** Cumulative number of 136 cases including 58 deaths have been reported.
- **Ghana:** No case has been confirmed in Ghana. Eight (8) suspected cases have been reported from Ashanti, Eastern, Greater Accra and Brong-Ahafo regions and all tested negative for Ebola and other Viral Haemorrhagic Fevers by PCR testing done at Noguchi Memorial Institute for Medical Research (NMIMR).

*\*Most of the information culled from WHO website (WHO Factsheet on Ebola) and Updates from the WHO. Outbreak related information available at <http://vshoc.afro.who.int> and <http://ems.who.int>*

### 6.0 RECOMMENDATIONS

- All regions, districts, health facilities are requested to further enhance education on Guinea worm, Guinea worm cash reward and thoroughly organize documentation on Guinea worm activities (previous and recent).
- All regions, districts, health facilities and the points of entry (borders, airports and sea ports) should strengthen/enhance surveillance on Viral Haemorrhagic Fevers.
- All Regions and Districts are urged to intensify active components of AFP surveillance and ensure 60<sup>th</sup> day follow up on all AFP cases are done.
- Regions, Districts and health facilities are to ensure monitoring and reporting of acute watery diarrhoea above 5 years of age and conduct thorough investigations by collecting stool specimens or rectal swabs in Cary-Blair medium for laboratory investigations.
- Regions, Districts and Health Facilities are to put in measures to reduce maternal deaths.
- We request regions to share this bulletin and subsequent ones with other regional and district staff.