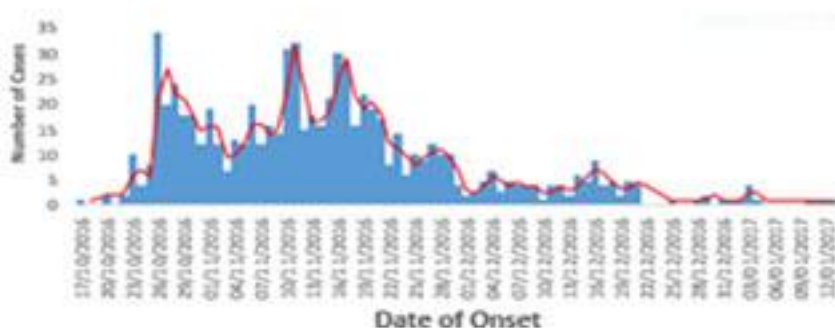


Ghana Weekly Epidemiological Report



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- Ketu South confirms two imported cases of Cholera
- WHO-AFRO 3rd Edition IDSR Training Module Review Workshop held
- All regions achieved the Annualized Non-Polio AFP Rate

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WEEK
42

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Report on Cholera Outbreak in Ketu South, Volta Region, October 2018

BACKGROUND

On 17th October, 2018, the Ketu South Municipal Health Directorate (MHD) received notification from the Emergency unit of the Ketu South Municipal hospital about two cases who had presented in a critical condition with signs and symptoms of cholera. Two cases; who were part of a group of six Ghanaian travellers from Nigeria in transit to Kumasi, Ashanti Region in Ghana. The two cases actually started experiencing diarrhoea on 16th October, 2018 and were treated until embarking on their journey to Ghana. The cases had passed watery stool and vomited during the journey. A joint investigation team made up of personnel from the Volta Regional Health Directorate, Ketu South Rapid Response Team was constituted with the objective to identify the causative agent, determine the source of infection, and institute control and preventive measures.

METHODS

The team interviewed the suspected cases and the other travellers. A working case definition of cholera was established to identify cases. A case is any person presenting with acute watery diarrhoea who presents to a health facility or dies in the community. Records review, interviews and observation were done to identify more cases.

FINDINGS

The cases developed the symptoms within 24 hours after consuming various kinds of food. The index case took the following for supper; Rice with Stew, Amala with Vegetable Soup, Khebab and Mirinda Drink. The next case took Semo with Vegetable Stew, Khebab and Mirinda Drink. A total of six travellers boarded the same vehicle from Nigeria to Ghana with 2 out of these 6 experiencing vomiting and diarrhoea throughout the journey. The index case experienced vomiting and diarrhoea on the 16th of October 2018 while in Nigeria. Fresh watery stool samples were taken from the two suspected cases and transported to the Volta Regional Hospital Laboratory for further laboratory investigation. The laboratory results on 23rd October 2018 isolated *Vibrio cholera* for both samples.

PUBLIC HEALTH ACTIONS

- Infection Prevention and Control were strictly practiced by health workers including wearing of PPEs
- Close contacts of the cases were given health education on personal and environmental hygiene and were detained for observation and further assessment
- Contact numbers of the cases and the contacts were taken for effective follow up.
- Contact tracing of all 15 contacts (four came with the cases from Nigeria and 11 hospital staff) was undertaken
- Records review and clinician sensitization were undertaken in affected hospital and nearby health facilities
- Alert on cholera was sent to all facilities

UPDATES

1. No new case was recorded after the first two cases reported on the 17th October 2018
2. The two confirmed cases who were initially admitted at Ketu South Municipal Hospital had fully recovered and going about their normal duties in Kumasi.
3. The four close contacts in Kumasi are also doing well and none has developed any symptoms
4. The remaining eleven staff who did the initial investigation are also being followed up and none has developed any symptoms

CONCLUSION

Two suspected cases of cholera were confirmed in Ketu South Municipal Hospital on 17th October, 2018 in travellers who were in transit from Nigeria to Kumasi in Ashanti Region. Fifteen contacts were listed and have been followed up in both Ketu South and Kumasi and none has shown any symptoms associated with cholera.

WHO-AFRO Third Edition IDSR Training Modules Review Workshop

Ghana was selected to participate in the review of the 3rd Edition IDSR (Integrated Disease Surveillance and Response) Technical Guidelines. The country subsequently participated in the review of the 3rd Edition IDSR Training Modules followed by a pilot training on the use of these modules from 8th - 12th October 2018 at Aburi in the Eastern Region. The main objective of the pilot training was to update the knowledge of selected participants on IDSR and also review the training modules for easy adaptability to WHO-AFRO (World Health Organization Regional Office for Africa) Member States. The training was facilitated by a team of public health experts and consultants. A total of 30 participants from diverse backgrounds including; Port health, Veterinary Service, regional and district health directorates, laboratory scientists, information technologists together with staff from WHO. Participants as part of the training were tasked to critique and identify areas in the IDSR 3rd Edition Training Modules and Technical Guidelines that needed further review as a feedback to WHO-AFRO for further updates and improvement. The facilitators used PowerPoint Presentations, group work, quizzes, discussions and plenary as the main methods for the Workshop. Participants also evaluated respective areas for modules that had been completed on daily basis. Emphasis was placed on the new topics that had been



introduced in the 3rd Edition IDSR which included e-IDSR and Community Based Surveillance (CBS).

Training participants provided feedback and recommendations based on their evaluation of the entire programs on the last day of the training followed by goodwill messages delivered by a number of stakeholders and leaders in the public health sector.



Picture 1: Group Work Session



Picture 2: Group Work Session

Summary of Weekly Epidemiological Data for Week 42, 2018

Highlights:

- All regions achieved the Annualized Non-Polio AFP Rate
- Brong-Ahafo, Volta and Western regions are the lead performers on surveillance reporting
- Influenza-like Illnesses account for 47% of weekly notifiable diseases
- Ketu South confirms 2 imported cases of Cholera

SUMMARY OF PRIORITY DISEASES AND EVENTS

The total all-cause weekly notifiable disease morbidity for Week 42 was 1,333 with one maternal death. Influenza-Like Illnesses accounted for majority (47%) of cases reported for the notifiable diseases during the Week (See Figure 1 and Annex 1)

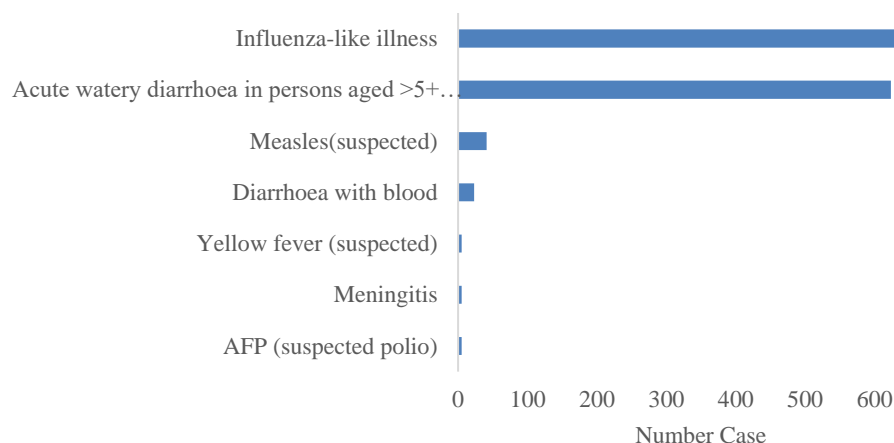


Figure 1: Reported number of cases for notifiable diseases, Ghana, Week 42, 2018

REGIONAL PERFORMANCE BASED ON REPORTING

Brong-Ahafo, Volta and Western regions with a mean score of 100% were the best performing regions whilst Central region had the lowest mean score of 78.3%. All regions achieved the expected target (64.6%) for percentage of districts reporting suspected Measles and Yellow Fever except Central (55.0%) and Upper West (45.5%) regions which failed to achieve the expected surveillance target for Yellow Fever.

[Table 1].

Timeliness and Completeness of reporting for all notifiable conditions for the Week were 96.1% and 97.2% respectively. Five regions namely; Eastern, Northern, Upper East, Volta and Western all scored 100% for both indicators.

Table 1: Ranking of Regional Performance based on selected Surveillance reporting indicators, Ghana, Week 42, 2018

Region	Timeli- ness (%) Week 42 A	Complete- ness (%) Week 42 B	Cum. AFP Cases Week 42	Annualized Non-Polio AFP Rate	AFP Score (%) C	Measles % District reporting D	YF % District reporting E	Average Score % (A+B+C+ D+E)/5	Position
Brong-Ahafo	99.9	99.9	59	6.3	100	100.0	100.0	100.0	1st
Volta	100	100	48	5.4	100	100.0	100.0	100.0	1st
Western	100	100	58	5.9	100	100.0	100.0	100.0	1st
Greater Accra	99.4	100	74	4.0	100	100.0	100.0	99.9	4th
Eastern	100	100	43	3.8	100	100.0	92.3	98.5	5th
Upper East	100	100	18	3.6	100	92.3	100.0	98.5	5th
Northern	100	100	54	5.3	100	84.6	96.2	96.2	7th
Ashanti	88	91.4	43	2.0	100	93.3	83.3	91.2	8th
Upper West	92.4	99.4	15	5.4	100	72.7	45.5	82.0	9th
Central	74	77.3	31	3.3	100	85.0	55.0	78.3	10th
Ghana	96.1	97.2	443	4.2	100	94.0	89.4	95.3	

ACUTE RESPIRATORY INFECTIONS

INFLUENZA-LIKE ILLNESS (IDSR Weekly Report)

A total of 630 cases of Influenza-like Illnesses were recorded with the Greater Accra Region accounting for 66% of these cases [Table 2].

Table 2: Reported Influenza-Like Illness cases by Region and District, Ghana, Week 42, 2018

Region	Districts	Cases	Deaths
Central	Cape Coast	29	0
Eastern	Kwaebibirem	2	0
	New Juaben	171	0
Greater- Accra	Accra	62	0
	Adentan	13	0
	Ga Central	1	0
	Ga East	32	0
	Ga West	25	0
	La-Dade-Kotopon	29	0
	Ningo-Prampram	5	0
	Shai-Osudoku	176	0
	Tema	75	0
Upper East	Kassena Nankana	2	0
Volta	Ketu South	4	0
Western	Sekondi-Takoradi	4	0
Total		630	0

Sentinel Reporting

A total of 105 samples were taken from 15 Sentinel Sites which included 91 samples from Influenza Like –Illnesses (ILI) and 14 from Severe Acute Respiratory Infection (SARI) patients [Table 3]. Twenty-one were confirmed (ILI - 20 and SARI – 1)

Accra recorded seven confirmed cases (A (H1N1) – 1, A (H3N2) – 2 and Flu B VIC – 5) [Table 4]. The highest number of confirmed cases in the year was recorded in Week 40. The cumulative distribution of Influenza virus subtypes for both ILI and SARI for the year were A (H1N1) – 307 (51.0%) followed by Flu B YAM – 193 (32.1%) and Flu B VIC – 67 (11.1%) and A (H3N2) – 30 (5%) [Figure 2]

Table 3: Reported ILI and SARI cases by Region, Ghana, Week 42, 2018

Region	Number of Sentinel Sites	Number of Samples			
		ILI	Confirmed	SARI	Confirmed
Ashanti	2	7	1	3	0
Brong-Ahafo	2	12	1	2	0
Central	-	0	0	0	0
Eastern	1	5	2	1	0
Greater Accra	4	26	8	1	0
Northern	1	7	2	3	1
Upper East	-	0	0	0	0
Volta	3	24	6	0	0
Western	2	10	0	4	0
Ghana	15	91	20	14	1

Table 4: Confirmed cases of ILI & SARI by Location, Ghana, Week 42, 2018

Region	Town	Number of Cases	RT-PCR Results
Ashanti	Kumasi	1	1- H3N2
Brong-Ahafo	Sunyani	1	1 - H1N1
Greater Accra	Accra	8	1 - H1N1, 2 - H3N2 & 5 - Flu B Vic
Eastern	Koforidua	2	2 - H3N2
Northern	Tamale	3	2 - H3N2 & 1 - Flu B Vic**
Volta	Ho	6	3 - H3N2, 2 - Flu B Vic & 1- Flu B Yamagata

*Reverse transcription polymerase chain reaction

**Confirmed SARI case

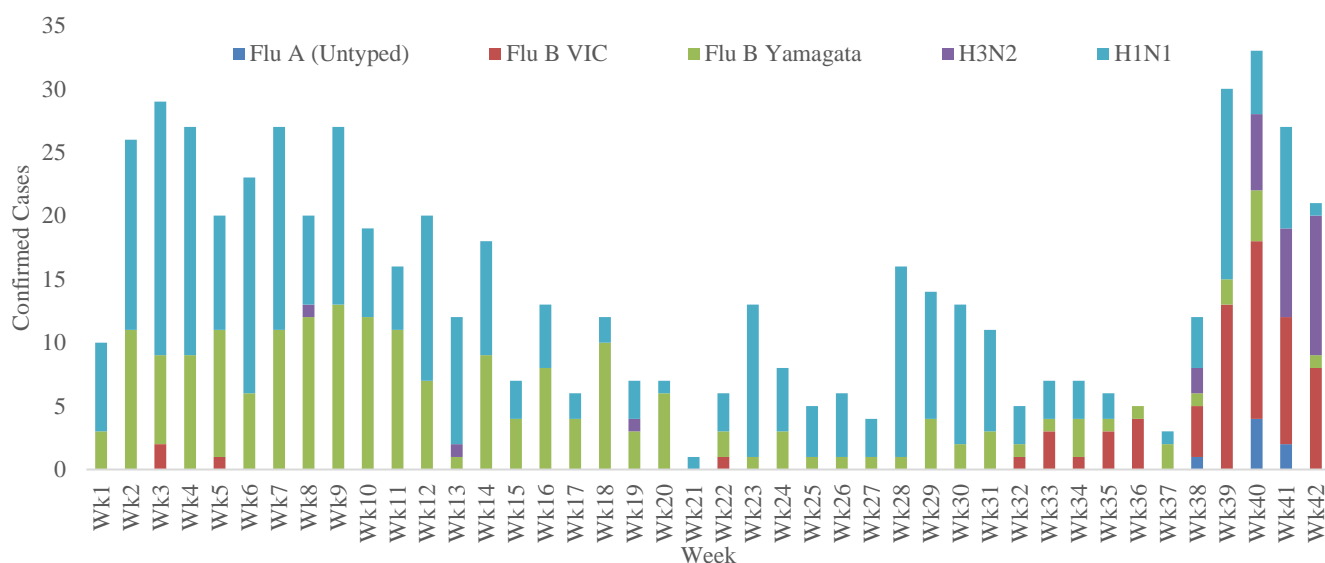


Figure 2: Number of positive Influenza by Subtyping, Ghana, Week 1 – 42, 2018

MEASLES

Forty-one suspected cases of Measles were reported during the week [Table 5]. Samples were taken and sent to the National Public Health Reference Laboratory [NPHRL] for investigations and awaiting results. As at the end of Week 42, the total confirmed cases of Measles was 31. Brong-Ahafo region has recorded the highest number (16) of the confirmed cases. All regions have recorded at least one confirmed case of Measles except Upper East and Upper West [Figure 3].

Table 5: Suspected Measles cases by Region and District, Ghana, Week 42, 2018

Region	Districts	Cases	Deaths
Ashanti	Kwabre	1	0
	Sekyer South	3	0
	Sekyer-Kumawu	2	0
	Asutifi South	1	0
	Berekum	1	0
	Dormaa Central	2	0
	Nkoranza North	1	0
	Sunyani	2	0
	Tain	1	0
	Tano North	2	0
Brong-Ahafo	Tano South	1	0
	Techiman South	2	0
	Wenchi	1	0
	Lower Manya-Krobo	1	0
Eastern	New Juaben	1	0
	Yilo-Krobo	1	0
	Accra	1	0
Greater Accra	Adentan	2	0
	Ga East	3	0
	Ga West	3	0
Northern	Zabzugu	1	0
	Kassena Nankana	1	0
Upper East	Kassena Nankana West	1	0
	Pusiga	1	0
	Sissala West	2	0
Upper West	Wa East	1	0
Volta	Kadjebi	1	0
Western	Bodi	1	0
Total		41	0

MENINGITIS

Five cases of meningitis were recorded across the country during the week [Table 6]. No district hit either the alert or epidemic threshold.

Table 6: Meningitis Cases and Deaths, Ghana, Week 42, 2018

Region	Districts	Cases	Deaths
Eastern	New Juaben	1	0
Northern	Tamale	1	0
	Sawla-Tuna-Kalba	1	0
Upper East	Bolgatanga	2	0
Total		5	0

YELLOW FEVER

Fourteen suspected cases of Yellow Fever were reported in Week 42 [Table 7]. All cases tested negative at the National Public Health Reference Laboratory [Figure 5].

Table 7: Suspected Yellow Fever cases by Region, Ghana, Week 42, 2018

Region	Districts	Cases	Deaths
Ashanti	Ahafo-Ano North	1	0
	Sekyer-Kumawu	1	0
Greater-Accra	Ga West	1	0
Upper East	Garu-Tempane	1	0
	Kassena Nankana	1	0
Total		5	0

CHOLERA

In Week 42, two confirmed imported cases with no death recorded in Ketu South District.

MATERNAL DEATHS

There was one maternal death recorded in the Ga West Municipality in Week 42

HUMAN RABIES

No case of Human Rabies was reported during the Week.

NEONATAL TETANUS

There was one case of Neonatal Tetanus recorded in the Asante-Akim North district in Week 42

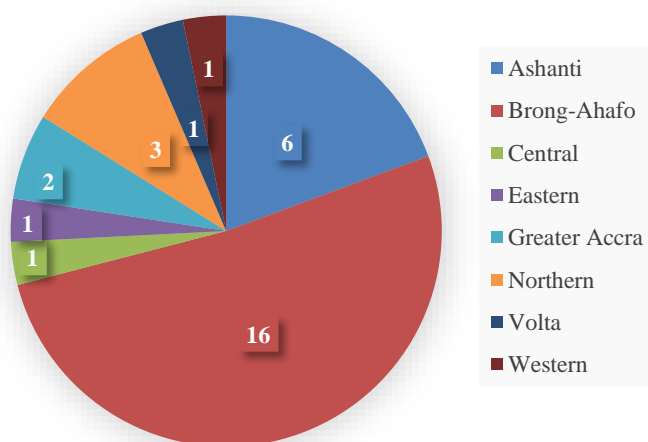


Figure 3: Distribution of cumulative Confirmed Measles by Region, Ghana, Week 42, 2018

ACUTE FLACCID PARALYSIS (SUSPECTED POLIOMYELITIS)

Five cases of suspected Polio were recorded in Week 42 [Table 8]. Stool specimens obtained for respective cases tested negative for wild polio virus at the Noguchi Memorial Institute for Medical Research Polio Laboratory.

Table 8: AFP cases and deaths by Region and District, Ghana, Week 42, 2018

Region	Districts	Cases	Deaths
Ashanti	Amansie Central	1	0
Brong-Ahafo	Nkoranza South	1	0
Greater-Accra	Accra	1	0
	Ga West	1	0
Upper East	Binduri	1	0
Total		5	0

Summary on Acute Flaccid Paralysis (AFP) Indicators, Week 1 – 42

All regions achieved the annualised Non-Polio AFP rate of 2.0 per 100,000 population less than 15 years as at the end of Week 42. A total of 443 cases have been recorded and 415 discarded as non-Polio AFP.

There has been a general improvement in the timeliness (90.7%) and adequacy of stool (86%) received by the laboratory with Upper West achieving 100% for both indicators [Table 9].

Table 9: Summary on Acute Flaccid Paralysis Surveillance, Ghana, Week 1 – 42, 2018

Region	Population Under 15 years	Expected Non-Polio AFP for the year	Reported AFP	Compatible	Discarded	Annualized Non-Polio AFP Rate	% Timely Stools	% Adequate Stools
Ashanti	2,484,707	50	43	0	39	2.0	93.0	83.7
Brong-Ahafo	1,164,263	23	59	1	57	6.3	91.5	86.4
Central	1,180,617	24	31	0	31	3.3	90.3	90.3
Eastern	1,305,965	26	43	0	39	3.8	90.7	90.7
Greater Accra	2,085,500	42	74	3	66	4.0	83.8	82.4
Northern	1,308,970	26	54	0	54	5.3	98.1	94.4
Upper East	483,561	10	18	0	14	3.6	83.3	77.8
Upper West	342,806	7	15	0	15	5.4	100.0	100.0
Volta	1,083,971	22	48	1	47	5.4	87.5	87.5
Western	1,169,233	23	58	3	53	5.8	93.1	77.6
Ghana	12,609,592	252	443	8	415	4.2	90.7	86.2

ANNEX 1: SUMMARY OF REPORTED CASES/ EVENTS: WEEK 42 (WEEK ENDING 21 OCTOBER, 2018)

Disease/Health Event (suspected/confirmed)	Week 41			Week 42			Cumulative to Week 42		
	Cases (susp)	Deaths	CFR (%)	Cases (susp)	Deaths	CFR (%)	Cases (susp)	Deaths	CFR (%)
AFP (suspected polio)	9	0	0.0	5	0	0.0	451	0	0.0
Acute haemorrhagic fever syndrome	1	0	0.0	0	0	-	40	0	0.0
Adverse events following immunization	0	0	-	0	0	-	1	0	-
Anthrax	0	0	-	0	0	-	2	0	-
Acute watery diarrhoea in persons aged >5+ years	702	0	0.0	624	0	0.0	44,712	0	0.0
Cholera	0	0	-	2	0	-	2	0	-
Dengue fever	0	0	-	0	0	-	0	0	-
Diarrhoea with blood	46	0	0.0	23	0	0.0	3,231	0	0.0
Dracunculiasis (Guinea worm)	0	0	-	0	0	-	0	0	0.0
Influenza-like illness	426	0	0.0	630	0	0.0	24,162	0	0.0
Maternal deaths	-	2	-	-	1	-	-	76	-
Measles(suspected)	45	0	0.0	41	0	0.0	1,740	0	0.0
Meningitis	5	1	20.0	5	0	0.0	902	62	6.9
Neonatal tetanus	1	0	0.0	0	0	-	12	2	16.7
Plague	0	0	-	0	0	-	0	0	-
Public health event of international concern (PHEIC)	0	0	-	0	0	-	0	0	-
Human rabies	0	0	-	0	0	-	23	23	100.0
SARS	0	0	-	0	0	-	0	0	-
Smallpox	0	0	-	0	0	-	0	0	-
Yellow fever (suspected)	14	0	0.0	5	0	0.0	734	0	0.0
NATIONAL TOTAL	1,249	3	0.1	1,335	1	0.0	76,017	163	0.1

*CFR does not include maternal deaths

*This report and subsequent ones should be shared with regional and district heads as well as heads of other agencies.
A feedback addressed to the Editor-In-Chief is welcome*

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