## Early Warning and Reporting System (EWARS)

# Weekly Bulletin

(8th Epidemiological Week)

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This bulletin includes the updates from two surveillance systems:

- 1. The Early Warning Reporting System (EWARS) includes data since January 2015 till date, including comparison of same period during last year.
- 2. Post-earthquake hospital based syndromic surveillance system covering public and private hospitals in the 14 districts highly affected by the April 2015 Earthquake.

## Section 1: The Early Warning and Reporting System (EWARS)

#### **Highlights**

- One death from AGE was reported this week from Lumbini Zonal Hospital, Rupendehi and the case was from Butwal Municipality.
- Two cases of Kala-azar were reported this week, one each from BPKIHS, Dharan and Sukraraj Tropical and Infectious Disease Hospital, Teku and the cases were from Mahottari and Salyan district respectively
- No case of Dengue and Malaria was reported this week.

The EWARS was established in 1997 to strengthen the flow of information on vector-borne and other outbreak prone infectious diseases from the district to Epidemiology and Disease Control Division (EDCD) and Vector-Borne Disease Research and Training Center (VBDRTC), Hetauda. Rapid Response Teams (RRTs) can be mobilized at short notice to facilitate prompt outbreak response at Central, Regional and District level. They can also support local level health institutions for investigation and outbreak control activities.

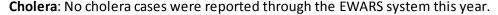
This information system is hospital-based and is currently operational in 48 hospitals (out of 81 sites) throughout Nepal (Figure 1). So far, the EWARS mainly focuses on the **weekly reporting** of number of cases and deaths (including "zero" reports) of six priority diseases/syndromes—Malaria, Kala-azar, Dengue, Acute Gastroenteritis (AGE), Cholera and Severe Acute Respiratory Infection (SARI), and other epidemic potential diseases/syndromes (like enteric fever). It equally focuses on **immediate reporting** (to be reported within 24 hours of diagnosis) of one confirmed case of Cholera, Kala-azar severe and complicated Malaria and one suspect/clinical case of Dengue as well as 5 or more cases of AGE and SARI from the same geographical locality in one week period.

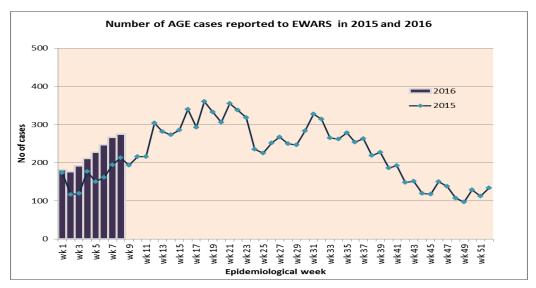


#### 1.1 Acute Gastro-Enteritis and Cholera

275 cases of AGE were reported in 8<sup>th</sup> epidemiological week of 2016. Among 275 cases, the majority of cases were from Jhapa (29 cases), Morang (27 cases), Dhading (27 cases), Kailali (21 cases), Kanchanpur (20 cases) and Bardiya (17 cases) districts. The number of AGE cases reported in eight week this year exceeds the number of AGE cases reported in the same week last year (213 cases). The trend also shows an increase in the number of reported cases compared with the previous epidemiological weeks.

One death from AGE was reported this week, from Lumbini Zonal Hospital, Rupandehi and the case was from Butwal Municipality. Four deaths from AGE were reported so far this year.



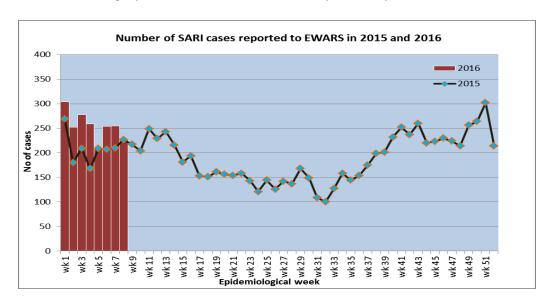


## 1.2 Severe Acute Respiratory Infection (SARI)

228 cases of SARI were reported in 8<sup>th</sup> epidemiological week of 2016. The cases of SARI reported this week was same as the number reported in the same week last year (227cases). Among 228 cases, 31 were from Jhapa, 27 from Morang, 21 from Rupandehi, 20 from Kailali and 16 each from Saptari and Kanchanpur district.

No death from SARI was reported this week. Ten deaths from SARI were reported so far this year.

The number of SARI cases reported through EWARS has peaked in week 11 (256 cases), week 43 (260 cases) and week 51 (302 cases) in 2015. Eighty-one deaths from SARI were reported in year 2015.



#### 1.3 Enteric Fever

16 cases of enteric fever were reported this week including 3 from Lumjung district and 2 each from Palpa and Surkhet district. The number of cases of enteric fever was peaked in week 37 in 2015 (71 cases).

#### 1.4 Malaria

No case of Malaria was reported this week. Only two cases of malaria were reported so far this year. Ninety cases of Malaria were reported through EWARS in 2015.

## 1.5 Dengue

No case of Dengue was reported this week. Only one case of dengue was reported so far this year. Fifty-eight cases of Dengue were reported through EWARS in 2015.

#### 1.6 Kala-azar

Two cases of Kala-azar were reported this week, one each from BPKIHS, Dharan and Sukraraj Tropical and Infectious disease hospital, Teku and the cases were from Mahottari and Salyan district respectively. Eighteen cases of Kala-azar were reported so far this year. 135 cases were reported through EWARS in 2015.

## Section 2: Post-Earthquake Hospital Based Syndromic Disease Surveillance

Epidemiology and Disease Control Division (EDCD) has been continuing post-earthquake hospital based syndromic surveillance system. The system covers 38 hospitals and primary health care centres in 14 earthquake affected districts; however 9 districts reported in last two weeks.

The objective of hospital based syndromic surveillance is to rapidly identify any increase in a number of outbreak prone syndromes. It helps us to ensure that outbreaks are not missed. The number of syndromes crossing the threshold level (doubling of the average of the previous 7 days, with a minimum of 5 cases) triggers an alert. But only one case triggers the alert for suspected cholera and fever with rash. Similarly, more than 5 cases in a 7 days' period trigger an alert for fever with jaundice.

The surveillance includes 8 syndromes: Influenza Like Illness (ILI), Severe Acute Respiratory Infection (SARI), acute watery diarrhoea, acute bloody diarrhoea, suspected cholera, fever with rash, fever with jaundice and fever without rash and jaundice. In this report, the data analysis was done for last 14 days.

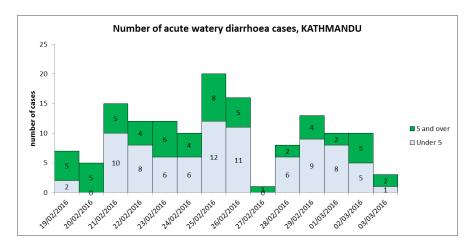
#### **Highlights**

- The number of Acute watery diarrhoea peaked on 25<sup>th</sup> February with 31 cases.
- Two cases of **Acute bloody diarrhoea** were seen in last two weeks.
- The number of Influenza like Illness (ILI) peaked on 25<sup>th</sup> February with 45 cases.
- The number of **Severe Acute Respiratory Infection** (SARI) peaked on 3<sup>rd</sup> March with 25 cases.
- No cases of **Fever with jaundice** were seen in last two weeks.
- The number of **Fever with rash** peaked on 21<sup>st</sup> February with 10 cases.
- The number of **Fever without rash and jaundice** peaked on 24<sup>th</sup> February with 56 cases.

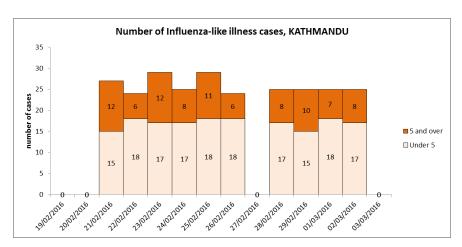
Analysis of information on 8 syndromes collected from hospitals in the earthquake affected 14 districts with in 21 days shows that except in Kathmandu districts, no remarkable observations (increase or decrease) of outbreak prone

syndromes were noticed. Reports were received from Gorkha, Kavre, Lalitpur, Makwanpur, Okhaldhunga, Ramechhap, Rasuwa and Sindhupalchok districts, while Bhaktapur, Dhading, Dolakha, Nuwakot and Sindhuli districts did not report in last weeks.

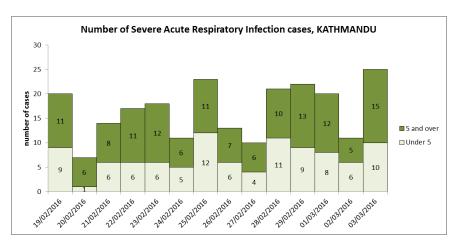
**In Kathmandu,** the highest number of acute watery diarrhoea was reported on 25<sup>th</sup> February with 20 cases.



**In Kathmandu,** the highest number of influenza like illness was reported on 23<sup>rd</sup> and 25<sup>th</sup> February respectively with 29 cases.



**In Kathmandu,** the highest number of severe acute respiratory infection was reported on 3<sup>rd</sup> March with 25 cases. The daily cases reported seem to be fluctuating over the weeks.



## Acknowledgement

The Epidemiology and Disease Control Division highly acknowledges the contribution from all the medical recorders, EWARS focal persons, rapid response team members and support from WHO and NHSSP for preparation of this bulletin.

## Timeliness & completeness of reporting from sentinel sites:

Site Code	Sentinel Sites	Timeliness (%)	Completeness (%)	Site code	Sentinel Sites		Timeliness (%)	Completen ess (%)
101	Mechi ZH, Jhapa	96	100	125	MZH, Kanchanpur		100	100
102	Koshi ZH, Morang	100	100	126	DH, Doti		94	100
103	DH, Sunsari	100	100	127	DH, Bardiya		98	100
104	BPKIHS, Dharan	92	100	128	DH, Mahottari		92	100
105	DH, Dhankuta	100	100	129	DH, Dadeldhura		0	0
106	SZH, Saptari	98	100	130	DH, Rasuwa		94	100
107	RKUP, Lahan, Siraha	96	100	131	DH, Sankhuwasabha		0	0
108	DH, Siraha	100	100	132	AMDA Hosp., Jhapa		100	100
109	JZH, Dhanusha	0	0	133	DH, Chautara		100	100
110	DH, Rautahat	90	100	134	DH, Sarlahi		86	50
111	DH, Bara	0	0	135	DH, Sindhuli		94	100
112	NSRH, Parsa	92	87	136	DH, Illam		98	100
113	DH, Makawanpur	94	100	137	Dhulikhel H., Kavre		98	100
114	NZH, Chitwan	90	87	138	DH, Solukhumbu		0	0
115	Kanti CH, Kathmandu	88	100	139	DH, Dolpa		0	0
116	STH, Kathmandu	98	100	140	DH, Humla		0	0
117	UMH, Palpa	98	100	201	Lamjung Comm DH, Lamjung		96	100
118	PCH, Nawalparasi	94	100	202	DH, Dhading		100	100
119	PBH, Kapilvastu	98	100	203	DH, Ramechhap		98	100
120	LZH, Rupandehi	100	100	209	Jiri H, Dolakha		88	12
121	RSRH Dang	0	0	211	DH, Tanahun		94	75
122	MWRH, Surkhet	98	100		Excellent (>8		30)	
123	BZH, Banke	0	0		Satisfactory		(50-79)	
124	SZH, Kailali	98	100			Bad (<50)		

**Note:** EWARS reporting form (in MS Excel format) is available at EDCD's official website  $\underline{\text{www.edcd.gov.np}}$ . This bulletin is also available at the website.