

**Early Warning and Reporting System (EWARS)**

# **Weekly Bulletin**

**(48<sup>th</sup> 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 2014 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
<ul style="list-style-type: none"><li>• Two cases of malaria were reported this week out of which one <i>plasmodium falciparum</i> case from Mechinagar Municipality ward no 3.</li><li>• One case of dengue was reported this week from Surkraraj Tropical and Infectious Disease Hospital and the case was from Bharatpur Municipality ward no 4.</li><li>• Two cases of Kala-azar were reported this week from BPKIHS, Dharan, one each from Morang and Sunsari district.</li><li>• Last year, the number of Dengue cases peaked on week 47 (14 cases) so it important to remain alert for new outbreak this year.</li><li>• One additional EWARS sentinel sites (District Hospital Nuwakot) has been expanded recently.</li></ul>

The EWARS has been established since 1997 in Nepal 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 the local level health institutions for investigation and outbreak control activities.

This information system is hospital-based and is currently operational in 40 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, fever of unknown origin). 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.

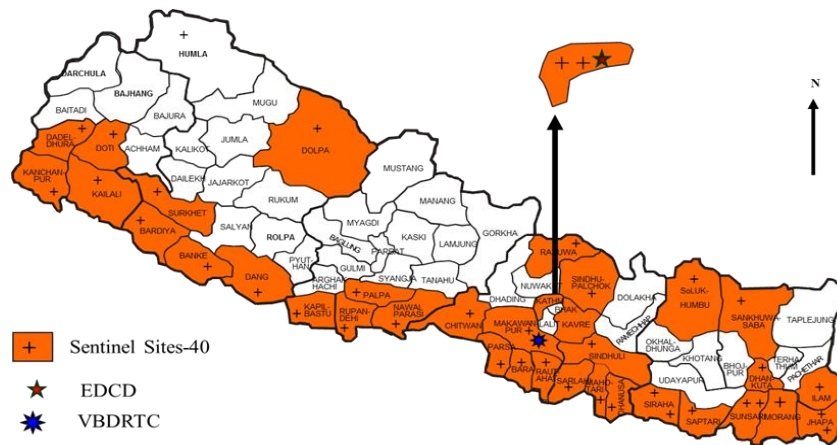


Figure 1: Sentinel sites of the Early Warning and Reporting System in Nepal set up in 2009

### 1.1 Acute Gastro-Enteritis and Cholera

98 cases of AGE were reported in week 48. The cases have decreased over the past few weeks. Among 98 cases, the majority of cases were from Morang (12 cases), Kapilvastu (10 cases), Sunsari (10 cases), Kathmandu (10 cases) and Kanchanpur (9 cases).

Surveillance for Cholera is ongoing at 35 different public and private hospitals of the Kathmandu Valley.

### 1.2 Severe Acute Respiratory Infection (SARI)

The number of SARI cases reported through EWARS has peaked in week 11 (249 cases) and week 43(281 cases) this year and has been decreasing afterwards. The number of SARI cases reported in week 48(151 cases) this year did not exceed the number of SARI cases reported in the same week last year (263 cases). Among 198 cases 24 cases were from Jhapa, 22 cases from Morang, 21 cases from Kailali, 12 cases from Kanchanpur and 11 cases from Palpa. No death from SARI was reported this week.

### 1.3 Enteric Fever

The number of cases of enteric fever has peaked in week 37 this year (71 cases). In week 48, 14 cases of enteric fever were reported, including 3 from Morang and Kavre and Jhapa each.

### 1.4 Malaria

Two cases of malaria were reported this week. One case (*plasmodium falciparum*) was reported from Mechi Zonal hospital and the case was from Mechinagar Municipality ward no 3. The other case (*plasmodium vivex*) was reported from Prithivi Chandra Hospital, Nawalparasi and the case was from Rupandehi district.

Eighty eight cases were reported through EWARS so far this year. The total number of Malaria cases reported in 2014 was 120.

### 1.5 Dengue

One case of dengue was reported this week from Surkraraj Tropical and Infectious Disease Hospital and the case was from Bharatpur Municipality ward no 4. Forty nine cases of Dengue were reported so far this year.

Last year, the number of Dengue cases peaked on week 47(14 cases) so it important to remain alert for new outbreak.

### 1.6 Kala-azar

Two cases of Kala-azar were reported this week from BPKIHS, Dharan, one each from Morang and Sunsari district.130 cases of Kala-azar are reported through EWARS till date this year. The number of Kala-azar cases reported through the EWARS was 200 in 2014.

## 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 7 districts reported in last three weeks.

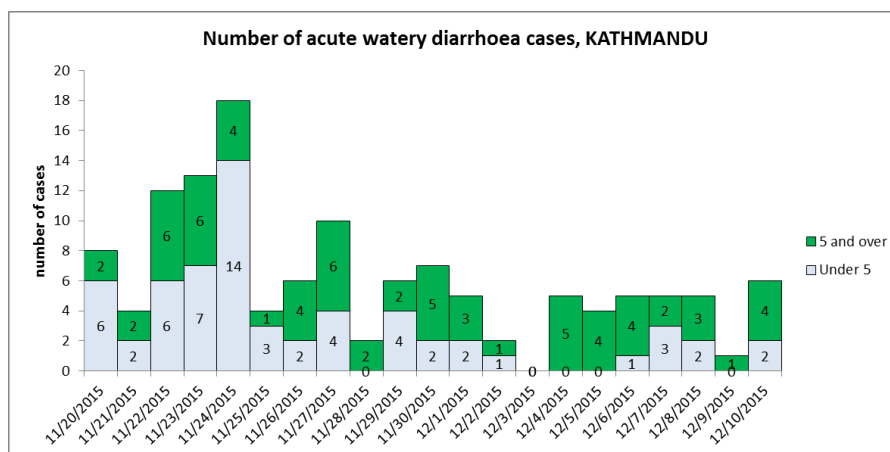
The objective of hospital based syndromic surveillance is to rapidly identify any increase in a number of outbreak prone syndromes. It helps us to ensure that outbreaks are not missed. The number of syndromes crossing the threshold level (doubling of the average of the previous 7 days, with a minimum 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 three weeks.

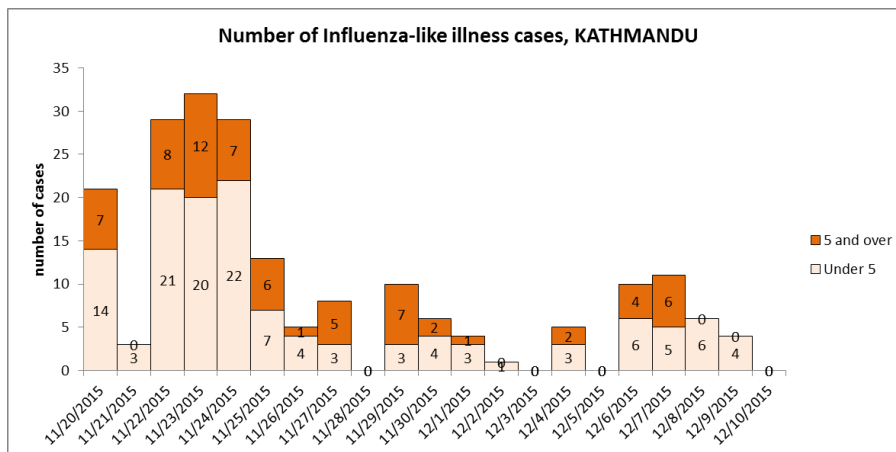
Highlights	
▪	The number of <b>Acute watery diarrhoea</b> peaked on 27 <sup>th</sup> November with 23 cases and seems to be fluctuating afterwards.
▪	Only two cases of <b>Acute bloody diarrhoea</b> were seen in last three weeks.
▪	The number of <b>Influenza like Illness (ILI)</b> peaked on 24 <sup>th</sup> November with 44 cases and seems to be in fluctuating afterwards.
▪	The number of <b>Severe Acute Respiratory Infection (SARI)</b> peaked on 24 <sup>th</sup> November with 29 cases and seems to be fluctuating afterwards.
▪	Few cases of <b>Fever with jaundice</b> were seen in last three weeks.
▪	The number of <b>Fever with rash</b> peaked on 22 <sup>nd</sup> November with 4 cases.
▪	The number of <b>Fever without rash and jaundice</b> peaked on 24 <sup>th</sup> November with 80 cases.

Analysis of information on 8 syndromes collected from hospitals in the earthquake affected 14 districts within 21 days shows that except in Kathmandu district, no remarkable observations (increase or decrease) of outbreak prone syndromes were noticed. Reports were received from Kavre, Lalitpur, Makwanpur, Okhaldhunga, Rasuwa, and Ramechhap districts, while Bhaktapur, Dhading, Dolakha, Gorkha, Nuwakot, Sindhuli and Sindhupalchowk districts did not report in last week.

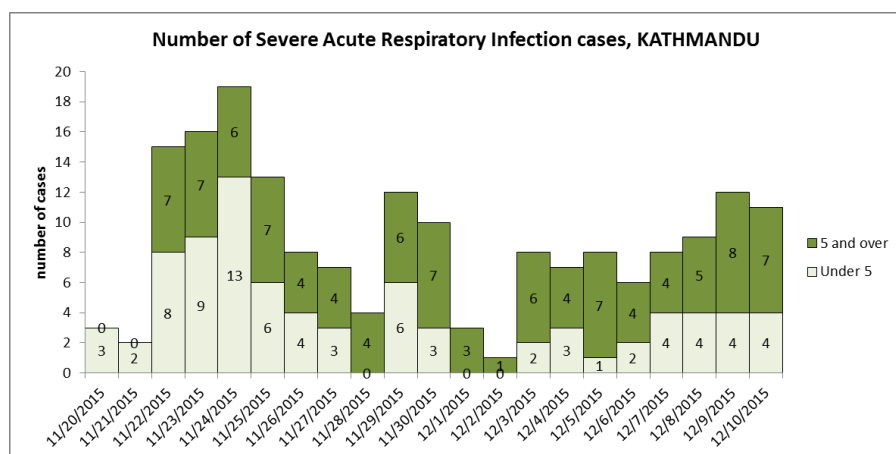
**In Kathmandu**, the number of acute watery diarrhoea has been fluctuating and a peak was observed on 24<sup>th</sup> November with 18 cases.



The number of influenza like illness has peaked on 23<sup>rd</sup> November with 32 cases in Kathmandu Valley.



The number of severe acute respiratory infection has peaked on 24<sup>th</sup> November with 19 cases in Kathmandu Valley.



### Miscellaneous:

Six out of 25 AES (Acute Encephalitis Syndrome) cases of 2014 were confirmed as Chandipura Virus infected in week 48 of 2015. The cases were from Morang, Sunsari, Saptari and Makwanpur District.

### 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, NHSSP and GiZ for preparation of this bulletin.

## Timeliness & completeness of reporting from sentinel sites

Site Code	Sentinel Sites	Timeliness (%)	Completeness (%)	Site code	Sentinel Sites	Timeliness (%)	Completeness (%)
101	Mechi ZH, Jhapa	98	100	125	MZH, Kanchanpur	98	100
102	Koshi ZH, Morang	98	100	126	DH, Doti	66	92
103	DH, Sunsari	84	100	127	DH, Bardiya	98	100
104	BPKIHS, Dharan	98	100	128	DH, Mahottari	14	90
105	DH, Dhankuta	98	100	129	DH, Dadedhura	88	20
106	SZH, Saptari	16	96	130	DH, Rasuwa	20	26
107	RKUP, Lahan, Siraha	98	100	131	DH, Sankhuwasabha	0	0
108	DH, Siraha	54	100	132	AMDA Hosp. Jhapa	98	100
109	JZH, Dhanusha	20	38	133	DH, Chautara	70	100
110	DH, Rautahat	78	100	134	DH, Sarlahi	8	96
111	DH, Bara	0	0	135	DH, Sindhuli	10	88
112	NSRH, Parsa	84	94	136	DH, Illam	96	100
113	DH, Makawanpur	30	96	137	Dhulikhel H., Kavre	36	100
114	NZH, Chitwan	24	96	138	DH, Solukhumbu	40	100
115	Kanti CH, Kathmandu	78	100	139	DH, Dolpa	0	0
116	STH, Kathmandu	98	100	140	DH, Humla	0	0
117	UMH, Palpa	98	100				
118	PCH, Nawalparasi	98	100				
119	PBH, Kapilvastu	98	36				
120	LZH, Rupandehi	96	98				
121	RSRH Dang	12	16				
122	MWRH, Surkhet	98	100				
123	BZH, Banke	56	86				
124	SZH, Kailali	98	100				

<span style="color: green;">■</span>	Excellent (>80)
<span style="color: yellow;">■</span>	Satisfactory (50-79)
<span style="color: red;">■</span>	Bad (<50)