Early Warning and Reporting System (EWARS)

Weekly Bulletin

(6th 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

- 142 cases of diarrhoea and pneumonia have been treated in Lakandra PHC and Tolijaisi VDC of Dailekh
 district since last week including two deaths. All the cases are children < 5 (Majority infants). Stool &
 blood samples along with throat swabs have been brought to NPHL, Teku for the further investigation.
- One death from SARI was reported this week from United Mission Hospital, Palpa and the cases was from Tahu VDC of Palpa districts.
- 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 Saptari and Nawalparasi district.
- No cases of Malaria and Dengue were 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.

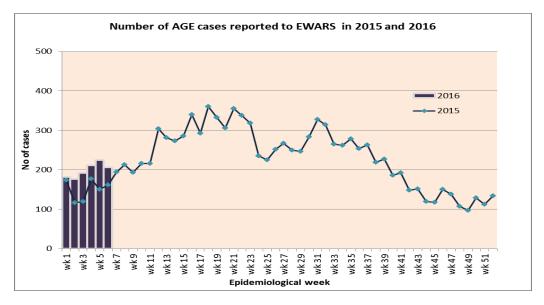


1.1 Acute Gastro-Enteritis and Cholera

206 cases of AGE were reported in 6th epidemiological week of 2016. Among 206 cases, the majority of cases were from Parsa (26 cases), Dhading (16), Rupandehi (15 cases), Morang (14 cases), Jhapa (14 cases) and Palpa (12 cases) districts. The number of AGE cases reported in sixth week this year exceeds the number of AGE cases reported in the same week last year (162 cases).

No Death from AGE was reported this week. Three deaths from AGE were reported so far this year.

Cholera: No cholera cases were reported through the EWARS system this year.

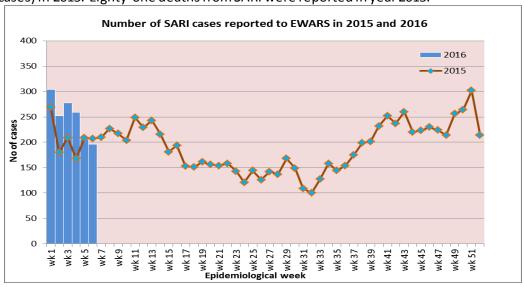


1.2 Severe Acute Respiratory Infection (SARI)

196 cases of SARI were reported in 6th epidemiological week of 2016. The cases of SARI reported this week did not exceed the number reported in the same week last year (207 cases). Among 196 cases, 47 from Jhapa, 21 from Morang, 19 were from Rupandehi, 15 from Parsa and 12 from Palpa district.

One death from SARI was reported this week from United Mission Hospital, Palpa and the cases was from Tahu VDC of Palpa districts. Eight 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

In sixth week of 2016, 19 cases of enteric fever were reported including 3 each from Lamjung and Parsa and 2 each from Ilam, Sunsari and Surkhet district. The number of cases of enteric fever has peaked in week 37 in 2015 (71 cases).

1.4 Malaria

No case of Malaria was reported this week. Only one case of malaria was 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 Saptari and Nawalparasi district. Sixteen 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.

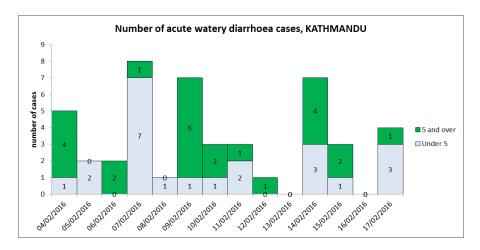
The surveillance includes 8 syndromes: Influenza like illness (ILI), severe acute respiratory infection (SARI), acute watery diarrhoea, acute bloody diarrhoea, suspected cholera, fever with rash, fever with jaundice and fever without rash and jaundice. In this report, the data analysis was done for last 14 days.

Highlights

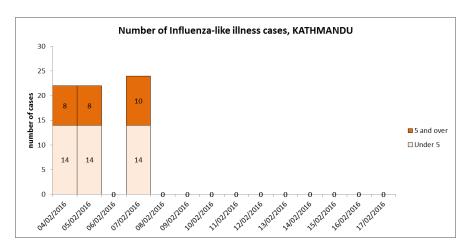
- The number of **Acute watery diarrhoea** peaked on 7th February with 39 cases.
- The number of **Acute bloody diarrhoea** peaked on 16th February with 8 cases.
- The number of Influenza like Illness (ILI) peaked on 5th February with 64 cases.
- The number of **Severe Acute Respiratory Infection** (SARI) peaked on 9th February with 25 cases.
- Thirteen cases of Fever with jaundice were seen in last two weeks.
- Seven cases of **Fever with rash** were seen in last two weeks.
- The number of **Fever without rash and jaundice** peaked on 4th February with 44 cases.

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

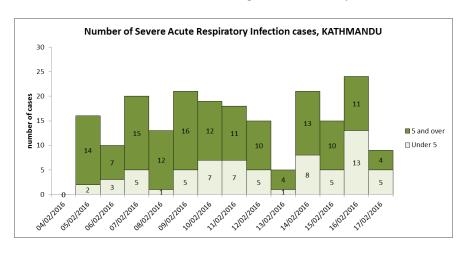
In Kathmandu, the highest number of acute watery diarrhoea was reported on 7th February with 8 cases. The daily cases reported seem to be fluctuating over the weeks.



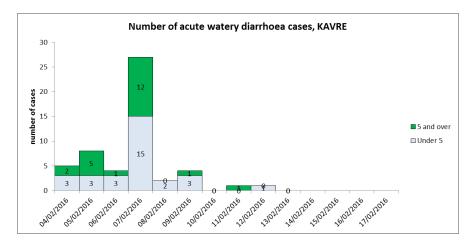
In Kathmandu, the highest number of influenza like illness was reported on 7th February with 24 cases. No cases of ILI seem to be reported this week.



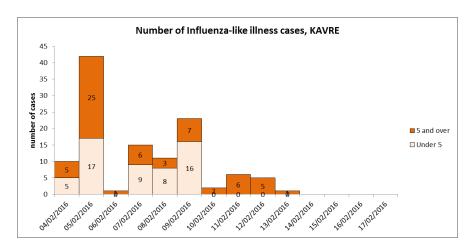
In Kathmandu, the highest number of severe acute respiratory infection was reported on 16th February with 24 cases. The daily reported cases seem to be more fluctuating this week compared to last week.



In Kavre, the highest number of acute watery diarrhoea was reported on 7th February with 27 cases. Very few cases of AWD were reported this week.



In Kavre, the highest number of influenza like illness was reported on 5th February with 42 cases. The daily cases reported this week seems to be lower than last week.



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 | 96 | 100 |
| 103 | DH, Sunsari | 100 | 100 | 127 | DH, Bardiya | 98 | 100 |
| 104 | BPKIHS, Dharan | 94 | 100 | 128 | DH, Mahottari | 92 | 100 |
| 105 | DH, Dhankuta | 100 | 100 | 129 | DH, Dadeldhura | 0 | 0 |
| 106 | SZH, Saptari | 98 | 100 | 130 | DH, Rasuwa | 96 | 100 |
| 107 | RKUP, Lahan, Siraha | 96 | 83 | 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 | 92 | 100 | 134 | DH, Sarlahi | 90 | 66 |

| 111 | DH, Bara | 0 | 0 | 135 | DH, Sindhuli | 94 | 100 | |
|-----|---------------------|-----|-----|----------------------|--------------------------|-----|-----|--|
| 112 | NSRH, Parsa | 94 | 100 | 136 | DH, Illam | 98 | 100 | |
| 113 | DH, Makawanpur | 96 | 83 | 137 | Dhulikhel H., Kavre | 98 | 100 | |
| 114 | NZH, Chitwan | 0 | 0 | 138 | DH, Solukhumbu | 0 | 0 | |
| 115 | Kanti CH, Kathmandu | 90 | 83 | 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 | 98 | 100 | |
| 118 | PCH, Nawalparasi | 94 | 100 | 202 | DH, Dhading | 100 | 100 | |
| 119 | PBH, Kapilvastu | 98 | 83 | 203 | DH, Ramechhap | 98 | 100 | |
| 120 | LZH, Rupandehi | 100 | 100 | 211 | DH, Tanahun | 96 | 83 | |
| 121 | RSRH Dang | 0 | 0 | Excellent (>80) | | | | |
| 122 | MWRH, Surkhet | 100 | 100 | | <u> </u> | | | |
| 123 | BZH, Banke | 0 | 0 | Satisfactory (50-79) | | | | |
| 124 | SZH, Kailali | 98 | 83 | | | | | |
| | | | | Bad (<50) | | | | |

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