

Early Warning and Reporting System (EWARS)

Weekly Bulletin

(49th Epidemiological Week)

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Government of Nepal
Ministry of Health and Population
Department of Health Services
Epidemiology and Disease Control Division
Kathmandu, Nepal
ewarsedcd@gmail.com

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"> • Four deaths from SARI were reported this week, two from Kanti Children Hospital and one each from Dhankuta District Hospital and Lumbini Zonal Hospital. The cases were from Chitwan, Sarlahi, Dhankuta and Arghakhanchi district. • One case of Kala-azar was reported this week from BPKIHS, Dharan, and the case was from Sunsari district. • Last year, the number of Dengue cases peaked on week 47 (14 cases) so it important to remain alert for new outbreak this year. • Two additional EWARS sentinel sites (Charikot PHC and Jiri Hospital) has been expanded recently.

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

97 cases of AGE were reported in week 49. The cases have decreased over the past few weeks. Among 97 cases, the majority of cases were from Kapilvastu (22 cases), Morang (13 cases), Kathmandu (7 cases) Nawalparasi (6 cases), Rupandehi (6 cases) and Sunsari (6 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 49 (211 cases) this year did not exceed the number of SARI cases reported in the same week last year (294 cases). Among 211 cases, 46 cases were from Morang, 31 cases from Jhapa, 22 cases from Kailali, 12 cases from Rupandehi and 11 cases from Kanchanpur.

Four deaths from SARI were reported this week, two from Kanti Children Hospital and one each from Dhankuta District Hospital and Lumbini Zonal Hospital. The cases were from Chitwan, Sarlahi, Dhankuta and Arghakhanchi district.

1.3 Enteric Fever

The number of cases of enteric fever has peaked in week 37 this year (71 cases). In week 49, 9 cases of enteric fever were reported, including 3 from Morang and 2 from Sunsari and Jhapa each.

1.4 Malaria

No case of Malaria was reported this week. 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

No case of Dengue was reported this week. 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 is important to remain alert for new outbreak.

1.6 Kala-azar

One case of Kala-azar was reported this week from BPKIHS, Dharan, and the case was from Sunsari district. 131 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.

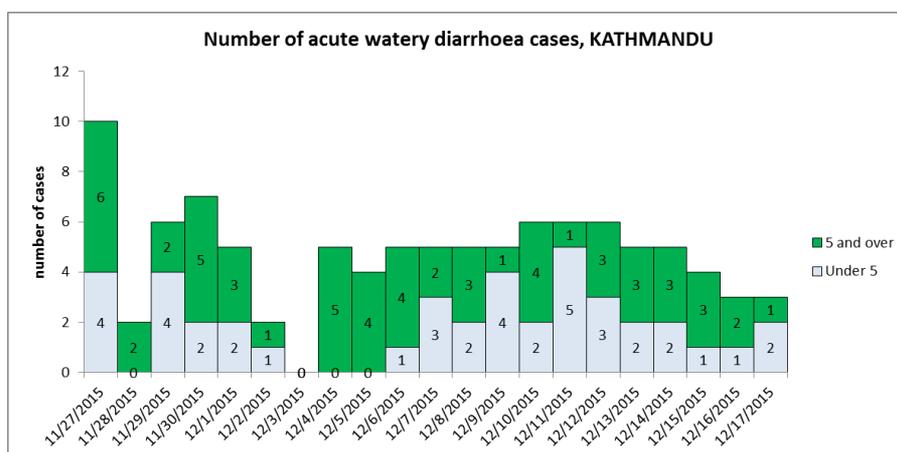
The objective of hospital based syndromic surveillance is to rapidly identify any increase in a number of outbreak prone syndromes. It helps us to ensure that outbreaks are not missed. The number of syndromes crossing the threshold level (doubling of the average of the previous 7 days, with a minimum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

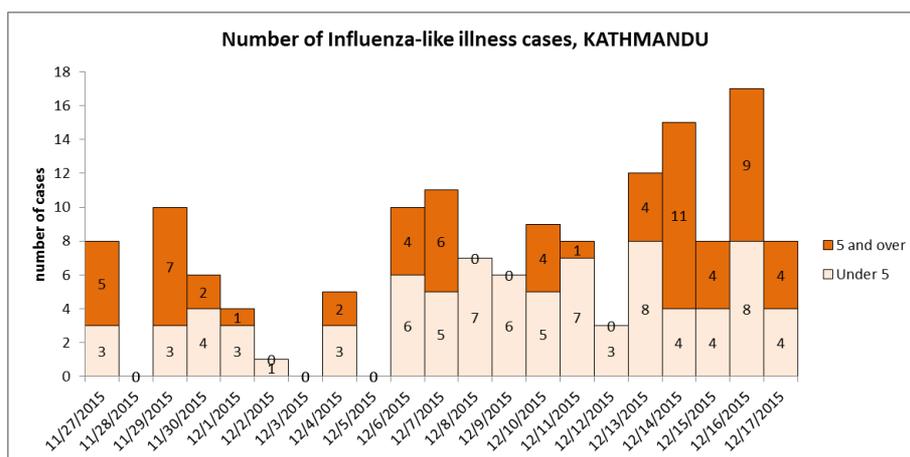
- | Highlights | |
|------------|--|
| ▪ | The number of Acute watery diarrhoea peaked on 27 th November with 23 cases and seems to be fluctuating afterwards. |
| ▪ | Few cases of Acute bloody diarrhoea were seen in last three weeks. |
| ▪ | The number of Influenza like Illness (ILI) peaked on 16 th December with 34 cases and seems to be fluctuating afterwards. |
| ▪ | The number of Severe Acute Respiratory Infection (SARI) peaked on 11 th December with 26 cases and seems to be fluctuating afterwards. |
| ▪ | Few cases of Fever with jaundice were seen in last three weeks. |
| ▪ | Few cases of Fever with rash were seen in last three weeks. |
| ▪ | The number of Fever without rash and jaundice peaked on 8 th December with 54 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.

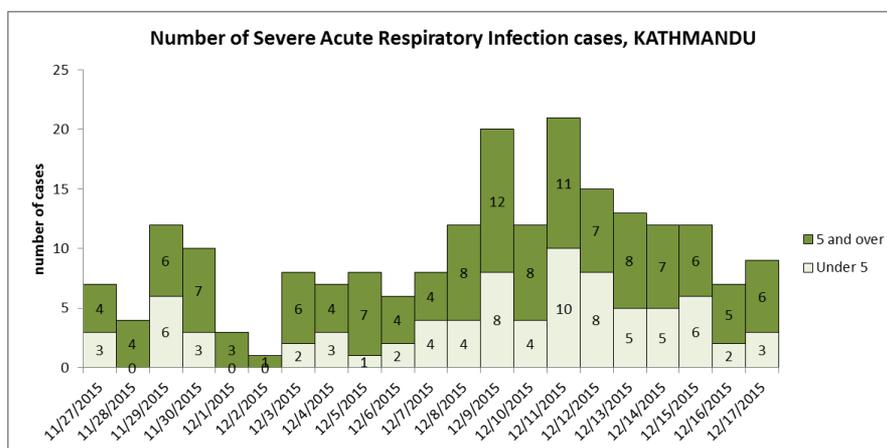
In Kathmandu, the number of acute watery diarrhoea has been fluctuating and a peak was observed on 27th November with 10 cases.



The number of influenza like illness has peaked on 16th December with 17 cases in Kathmandu Valley.



The number of severe acute respiratory infection has peaked on 11th December with 21 cases in Kathmandu Valley.



Launch of EDCD's official website

EDCD has launched official website featuring the complete organogram, its sections, activities, and future plans of the division. The web address is www.edcd.gov.np. It is launched with the aim to help Public health professionals, clinicians and all related stakeholders by making information easily accessible to them. Through this website EDCD will continuously update about any events and outbreak if and when occurs. Furthermore it will be a platform for everyone to share public health and clinical knowledge, research findings and experiences.

The main sections of the website include:

- Introduction – Background of division
- Organization Structure
- EDPs – Short intro of each External Development Partners (EDPs) and areas of support
- People – List of officials of the division
- Sections of the division – Intro, vision, objectives and programs of each section
- Media Center – Press Releases, News, IEC Materials and Multimedia



- Publication – Publications of EDCD
- Resources – Any resource of public health interest (under construction)
- Notice board – Notices published by EDCD
- Outbreak and Emergencies – Current situation of any outbreaks or emergencies
- Latest Bulletin – List latest EWARS bulletins
- Statistics Map (under construction)
- Feedback – Feedback to EDC

To make this site more informative and interactive, the valuable feedback from the visitors is highly expected. Feedback and suggestions about the website can send at ewarsedcd@gmail.com.

Acknowledgement

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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	96	98
102	Koshi ZH, Morang	98	100	126	DH, Doti	68	94
103	DH, Sunsari	86	100	127	DH, Bardiya	98	100
104	BPKIHS, Dharan	98	100	128	DH, Mahottari	12	88
105	DH, Dhankuta	98	100	129	DH, Dadeldhura	86	18
106	SZH, Saptari	14	94	130	DH, Rasuwa	18	24
107	RKUP, Lahan, Siraha	98	100	131	DH, Sankhuwasabha	0	0
108	DH, Siraha	56	100	132	AMDA Hosp. Jhapa	98	100
109	JZH, Dhanusha	18	36	133	DH, Chautara	68	98
110	DH, Rautahat	76	98	134	DH, Sarlahi	6	94
111	DH, Bara	0	0	135	DH, Sindhuli	8	86
112	NSRH, Parsa	82	92	136	DH, Illam	98	98
113	DH, Makawanpur	32	98	137	Dhulikhel H., Kavre	34	98
114	NZH, Chitwan	22	94	138	DH, Solukhumbu	38	98
115	Kanti CH, Kathmandu	80	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	38				
120	LZH, Rupandehi	98	100				
121	RSRH Dang	10	14				
122	MWRH, Surkhet	98	100				
123	BZH, Banke	54	84				
124	SZH, Kailali	98	100				



■ Excellent (>80)
■ Satisfactory (50-79)
■ Bad (<50)