

This is a consolidated quarterly news report (Q3) based on the quarterly reports received from 13 VRDLN labs. The report comprises of the outbreaks reported from the labs which have processed the samples. The report also includes the number of positive cases for each virus by each lab, based on the monthly reports received.

East & North networking labs

- ❖ **Bhubaneswar VRDL reported outbreak of Jaundice in September from Cuttack** (Ramanath Lane and Alamchand Bazar). 125 people were examined totally. 47 /53 collected samples were positive for **HEV IgM**. The lab overall ran 1015 no. of serological tests and 787 no. of molecular tests
- ❖ **Lucknow VRDL reported 92/429 of positive AES cases with definite diagnosis** (JE virus was detected in 50 cases, Dengue virus (31), Herpes simplex virus (03), Enterovirus (02), Varicella Zoster virus (04), and Measles virus (02). In August, **a sudden increase** in number of **influenza virus cases** was noticed; 25.3% (59/233) cases were positive for Influenza virus (55, Influenza A (subtype H3 N2) and 4 Influenza B) by Real Time PCR as compared to 7.6% (8/105) cases in July and 4.8% (3/62) cases in September. The lab tested 3198 patients (3620 by serology and 2247 by RTPCR).
- ❖ **Patna VRDL reported an outbreak of Unknown Mysterious disease at Gaya district (Bihar) in September**. Throat swab and blood sample were collected from affected villages and tested via ELISA and PCR for Dengue, JE, Influenza, Enterovirus. No sample was found positive for any of these viruses. The lab processed 1164 samples (882 by serology, 120 by RTPCR) in this quarter.
- ❖ **Ranchi VRDL reported Chicken pox outbreak in Ranchi**. Out of the five suspected cases, samples from three children and one adult were positive for anti-VZV IgM antibody among the samples shipped to Lucknow lab. Increased activity of Dengue & JE noted in the month of September. The lab tested 536 samples (232 were for vector-borne disease viruses, 180 for viruses transmitted by blood or body fluids, 96 for viruses transmitted by faeco-oral route and 29 for respiratory viruses)

Central & West networking Labs

- ❖ **Jabalpur VRDL reported Dengue Outbreak from Shivpuri district in September 2014** reported. Affected villages included Nandpur, Nayagaon, Rajgadh, Jhandagaon and Samoha. Most patients had complaint of high grade fever frontal headache, body ache with rare vomiting. 40/95 (42.1%) were positive for Dengue IgM and/or CDCs real time PCR. Dengue virus 1 was detected in 5 samples by real time PCR.
- ❖ **Jaipur VRDL** processed 1124 patient samples with 4949 tests (1779 by Serology, 3170 by PCR & 179 by sequencing, rest of the tests not mentioned)

South networking Labs - Chennai VRDL

Outbreaks of Dengue and Chikungunya were reported months in July (two mixed outbreak & one of dengue) **and in September** (two of dengue and one of CHIK)- details not reported

- The lab tested **1236 samples** (386 for respiratory viruses, 194 for faeco-oral viruses, 268 for vector-borne disease viruses, 368 viruses transmitted by blood and other body fluids)

- Activity of Respiratory virus cases was consistent throughout, positives increasing in May. Seasonal was not observed in the month of August and pandemic Influenza cases none. Influenza A/H3N2 was the only seasonal Influenza virus type detected, which was similar to their Q2 activity. Activity of Influenza A/H1N1 (pdm09) was not observed - **none of the 87 cases** were positive.

- There was a significant increase in the number of Dengue, JE and Chikungunya cases. CMV cases and positivity was consistent throughout, positives were also similar in all the three months. Rubella cases were more in July and September and less in August. Positive cases of EBV were observed in August.

❖ **Manipal VRDL**

JE outbreak reported from Coastal Karnataka and Kerala. N R Pura Taluk, Chikmangalur District, Karnataka (1 case) in July, Kolakkathchali Village & Post, Malappuram District, Kerala.(1 case)in July, Udupi district (5 cases) and in Uttara Kannada district (1 case) of Karnataka in August, Kundapura Taluk, Udupi District, Karnataka (1 case) in September. **Seasonal Influenza A/H3N2 outbreak reported in Karnataka** among students in Morarji Desai School, Thirthahalli Taluk, Shimoga District of Karnataka (8 cases) in July 2014, among students in Shri Siddivinayaka Residential School Hattiangadi, Kundapura Taluk, Udupi District (2 cases) in September

Hepatitis A cluster at Thariode CHC Area Wayanad district, Kerala (3 cases) in August. **Varicella Zoster Virus cluster** among Manipal University students, Manipal Udupi district, Karnataka (2 cases) in August. Decreased activity of Influenza A/H1N1 (pdm09) and Influenza A (H3N2) in Kerala and Karnataka state. Decreased activity of Dengue compared to the same period in last year.

The VRDL tested **1562 patients** with **3276** samples. Of these, **966** samples were screened for respiratory viruses, 230 for faeco-oral viruses, **1247** for vector-borne disease viruses, and **833** for miscellaneous viruses.

- ❖ **Alappuzha VRDL** processed **503 numbers of samples** with 863 tests. Individually by virus, 25/179 Dengue (IgM & PCR), 6/67 Entero (PCR), 17/86 RSV (IgM+ PCR), 7/43 Adeno (PCR), 9/76 CMV(IgM+ PCR) and 5/157 JE(IgM+ PCR) positive were reported. No outbreak was reported.
- ❖ **Hyderabad VRDL** tested a total of 933 samples, reported positive dengue (117/685 IgM & NS1), highest being in September. Others details not obtained. No out-breaks reported during this quarter.
- ❖ **Thiruvananthapuram VRDL** tested 1159 samples from 1103 patients (473 by serology, 117 by conventional PCR and 559 by Quantitative PCR. No outbreaks reported.
- ❖ **Port Blair VRDL reported** 4 clinically suspected **Hand Foot Mouth disease** cases from South Andaman Islands. (Throat and lesion swabs) processed were positive for Enterovirus. Attempts were made for isolate the Entero virus. The lab processed 1410 samples for different viruses. 113/960 were positive by serology and 105/1674 by PCR.
- ❖ **Vizag VRDL** lab processed **328/1090 positive samples** by serology. **No outbreaks reported.**

Respiratory viruses

Lab	Adeno	Measles	VZV	RSV	Influenza*	Influenza A(H1N1)	Para-influenza
Manipal	2/73	4/89	6/129	54/179	145/1530	40/765	0/40
Port Blair	22/186	NT	NT	58/256	0/123	NT	0/123
Lucknow	1/6	5/67	20/198	NT	67/340	NT	0/4
Orissa	0/7	6/26	3/5	0/39	0/78	0/17	11/156
Jaipur	10/137	NT	6/108	0/27	5/122	1/36	3/135
Tvpm	0/2	0/1	0/1	0/2	1/28	0/28	NT
Alappuzha	7/41	0/6	0/1	11/28	NT	NT	NT
Chennai	NT	4/135	2/29	6/38	3/197	0/87	0/10
Ranchi	NT	NT	NT	NT	NT	NT	NT
Vizag	NT	NT	NT	NT	0/2	0/3	NT
Jabalpur	NT	0/1	NT	0/31	16/36	NT	NT
Patna	NT	0/9	1/2	NT	NT	NT	NT
Hyderabad	NT	NT	NT	NT	NT	NT	NT
Total	42/452	19/334	38/473	129/600	237/2456	41/936	14/468

Numerator- No. positive, Denominator- No. tested, NT: Not Tested. H1N1 listed above is tested by PCR.

*Influenza (includes A,B, not specified), Para-influenza 1,2 tested by PCR. VZV & measles listed are tested by IgM & PCR. RSV & Adenovirus listed are tested by PCR

GE viruses

Lab	Rota	Entero	Hep-A	Hep-E
Manipal	NT	1/168	4/19	1/19
Port Blair	NT	13/175	NT	NT
Lucknow	NT	2/149	61/226	23/219
Orissa	30/112	0/13	21/56	65/174
Jaipur	12/48	4/187	65/131	6/131
Tvpm	NT	0/2	NT	NT
Alappuzha	NT	2/42	NT	NT
Chennai	NT	1/102	53/169	3/78
Ranchi	0/6	NT	5/41	7/39
Vizag	NT	NT	0/12	4/18
Jabalpur	NT	NT	24/74	49/246
Patna	6/256	NT	1/102	7/82
Hydrbd	NT	NT	NT	NT
Total	48/422	23/838	234/830	165/1006

Numerator- No. positive, Denominator- No. tested, NT: Not Tested.

Rotavirus listed includes tests by both Electrophoresis & Rapid diagnostic tests. Hep-A, E by IgM ELISA, Enterovirus by PCR

Vector-borne viruses

Lab	Dengue	CHIK	JE	WN
Manipal	169/1365	7/52	9/110	7/24
Port Blair	103/921	14/128	NT	0/2
Lucknow	93/646	2/8	47/374	NT
Orissa	34/205	0/6	0/10	NT
Jaipur	26/72	0/31	0/108	0/108
Tvpm	0/3	0/3	NT	0/13
Alappuzha	25/179	0/6	4/143	0/28
Chennai	87/282	23/88	10/142	0/24
Ranchi	16/142	0/14	15/76	NT
Vizag	268/881	53/160	NT	NT
Jabalpur	211/806	5/66	NT	NT
Patna	2/134	0/1	2/206	NT
Hyderabad	117/685	NT	NT	NT
Total	1151/6347	104/563	87/1169	7/199

Numerator- No. positive, Denominator- No. tested, NT: Not Tested.

Dengue listed includes tests by IgM, PCR & NS1 antigen detection/rapid tests. JE, CHIK & West Nile (WN) listed includes tested by PCR, IgM ELISA.