

This is a consolidated quarterly news report (Q2) 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.

Quarter-2 consolidated report of VRDLNs (April 1 2014-June 30, 2014)

NIE, Chennai

Central & West networking Labs

❖ **Jabalpur VRDL**

Lab reported Dengue outbreak in Village Kahargaon, Narsingpur district 56/78 (72%) of the samples were positive for dengue. **Dengue outbreak** reported from Tikra Tola tribal village, Block Bamni, Mandla district. 59/81(73%) of samples collected were found to be positive for Dengue IgM and or PCR.

Lab reported Acute GE outbreak in Survahi village, Balaghat district following consumption of a marriage feast meal. Two adult deaths were attributed to diarrhea, vomiting, dehydration and acute renal failure. Samples were collected and further details not reported.

Hepatitis E was reported from Sarekha and Bharbheli in Balaghat district. 3/5 were tested positive for hepatitis E IgM

- ❖ **Jaipur VRDL** processed 975 patients' samples with 3895 tests (1902 by Serology, 2633 by Real time PCR / PCR). HEV, Dengue outbreaks were investigated at Jodhpur and Tonk of Jaipur(details not reported)

East & North networking labs

❖ **Bhubaneswar VRDL**

Lab reported outbreak of Chickenpox in April from Mahadeipur, Samantarapur and Burupada villages of Patrapur block, Ganjam district. **17 /38** samples were positive for Varicella IgM. The lab overall ran

1092 no. of tests out of which **159** were collected for outbreak investigation & follow-up(1013 by serology, 488 by PCR)

Lab reported outbreak of Hepatitis-E in May from Sunderpada and Balipatna, Bhubaneshwar. **10/37** and **2/19** samples were positive for HEV IgM antibody respectively.

- ❖ **Lucknow VRDL** tested **1938 patients** (1835 by serology and 1436 by RTPCR). **Chicken Pox outbreak was reported** from Ghazipur, C block, Indiranagar, Lucknow in last week of April.
- ❖ **Patna VRDL** processed 773 samples (315 by serology). **Reported Chicken pox outbreak** in Musepur, Dhoraha, Bihta in June. There were 16 patients affected from Chickenpox. One sample was found to be positive for VZV ELISA IgM.
- ❖ **Ranchi VRDL** tested **492 samples** (75 for faeco-oral viruses, 102 for vector-borne disease viruses, 68 for respiratory viruses and 247 for viruses transmitted by body or body fluids). Reports isolated cases of Dengue, Rota virus, Hepatitis A in April. The number of cases of **hepatitis E went on to rise** in May, June. A sudden surge of measles cases were seen in a particular district in May. The lab **reported measles outbreak** in Wasseypur, District Dhanbad in May. 27 samples were collected and processed for confirming the measles outbreak. Rest of the details not reported.

South networking Labs

❖ Chennai VRDL

- The lab tested **1148 samples** (381 for respiratory viruses, 165 for faeco-oral viruses, 185 for vector-borne disease viruses, 417 viruses transmitted by blood and other body fluids).
- Activity of Respiratory virus cases was consistent throughout, number of positives increased in May. Seasonal was not observed in April but pandemic Influenza cases were found in all the months. Influenza A/H3N2 was the only seasonal Influenza virus type detected during the second quarter. Activity of Influenza A/H1N1 (pdm09) was comparatively higher when compared to Q1 as **7 of the 109 cases** were positive.
- There was further dip in the cases for vector borne viruses from Q1. CMV cases and positivity was consistent, were more in the month of April and June. Rubella cases were consistent throughout the quarter and no positives were observed in the month of June. Positive cases of EBV were observed in the month of April
- **Measles outbreak** was investigated and confirmed in the month of April (details not reported)

❖ Manipal VRDL

- The VRDL tested **885 patients** with **2138** samples. Of these, **572** samples were screened for respiratory viruses, 147 for faeco-oral viruses, **689** for vector-borne disease viruses, and **730** for miscellaneous viruses. Increased activity of Influenza A/H1N1 (pdm09) and Influenza A (H3N2) activity in Kerala and Karnataka state. Decreased activity of Dengue compared to last year.
- **Measles outbreak continued from last quarter** in Manipal University campus, Manipal, Udupi District, Karnataka in May 2014 (5 cases) and also in June 2014 (4 cases). Other places were Tumkur Halli, Bg Kere PHC, Molakalmur, Chithradurga District, Karnataka (3 cases)
- **Hepatitis A outbreak reported from** Kottambali Colony, Wayanad District, Kerala in May 2014 (6 cases).
- **Chickenpox outbreak from** Moodigere, Chikmangalore district, Karnataka State in June 2014. (2 cases)
- **Japanese Encephalitis outbreak** from Harapanahalli, Davengere district, Karnataka state in June 2014 (1 case)

❖ Alappuzha VRDL

- VRDL processed **378 numbers of samples with 705 tests**. Individually by virus, 23/95 Dengue (IgM & PCR), 3/68 Entero (PCR), 7/33 EBV (IgM+ PCR), 7/39 Adeno(PCR), 5/43 CMV(IgM+ PCR) positive were reported.
- **KFD outbreak** at Nilambur tribal area in the forest, Malapuram District, Kerala (19-21 May). **4/26** were positive for KFD (3 by KFD IgM and 1 by PCR). A new focus in Kerala thus identified.
- Raising seasonal flu (H3N2) activity in Alappuzha and Dengue activity in Kottayam district was noticed.

- ❖ **Hyderabad VRDL** tested a total of **752 samples**, reported positive dengue (318/752 IgM & NS1). Others details were not obtained. No out-breaks were reported during this quarter.
- ❖ **Thiruvananthapuram VRDL** tested **1002 samples** from 890 patients (329 by serology, 143 by conventional PCR and 517 by Quantitative PCR). **Outbreak of Dengue and HAV** investigations were carried out at Mynakapally Panchayat, Kollam District (details not reported)
- ❖ **Port Blair VRDL** collected **1567 samples** and processed for Dengue, Chikungunya, Coxsackie virus, Influenza A, RSV, Para-Influenza 1/2/3, Norovirus, Sapovirus, Astrovirus, HMPV, Adenovirus, Enterovirus, Hepatitis-B, CMV, HHV-6 and EBV. 91/971 were positive by serology, 136/2621 by PCR.

- ❖ **Port Blair VRDL reported Dengue outbreak in Havelock island of South Andamans. 3 out of 65** suspected samples (4.6%) were positive for Dengue IgM. Sixty two IgM Negative samples were processed for RT-PCR analysis and 25 (38.4%) were positive. Ten samples were processed for sequencing and identified that the outbreak was due to DENV serotype III. Entomological investigations showed prolific *Aedes* breeding in the 6 villages (around PHC). Twenty four mosquito pools were collected and processed for Dengue virus. Two pools showed positive for presence of dengue virus (Serotype -III) by RT- PCR analysis and further confirmed with sequence analysis.

Respiratory virus

Lab Location	Adeno	Measles	VZV	RSV	Influenza*	Influenza A(H1N1)	Para-influenza
Manipal	8/138	35/137	8/24	9/57	149/1144	85/572	0/24
Port Blair	41/329	NT	1/1	41/329	10/354	NT	1/153
Lucknow	0/24	1/52	8/31	2/24	3/260	NT	0/24
Orissa	1/33	7/23	8/38	0/33	1/66	0/33	3/132
Jaipur	23/218	2/35	NT	4/130	25/201	1/141	5/222
Tvpm	0/17	NT	0/2	0/17	7/23	4/28	NT
Alappulza	5/41	1/18	1/9	1/6	NT	NT	NT
Chennai	NT	42/57	10/39	6/19	27/156	7/109	NT
Ranchi	NT	8/27	NT	NT	NT	NT	NT
Vizag	NT	NT	NT	NT	NT	NT	NT
Jabalpur	NT	1/9	NT	2/23	1/23	NT	NT
Patna	NT	NT	1/9	NT	NT	NT	NT
Hyderabad	NT	NT	NT	NT	NT	NT	NT
Total	78/800	97/358	37/153	65/638	223/2227	97/883	9/555

Numerator- No. positive, Denominator- No. tested, NT: Not Tested. Total positives given are for all tested samples in the three months. H1N1 listed above is tested by PCR.

*Influenza (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

Vector-borne viruses

Lab	Rota	Entero	Hep-A	Hep-E	Lab	Dengue	CHIK	JE	WN
Manipal	NT	2/100	8/24	0/24	Manipal	62/723	4/41	1/64	0/41
Port Blair	NT	12/231	NT	NT	Port Blair	88/946	28/209	NT	NT
Lucknow	NT	1/4	8/93	10/90	Lucknow	6/56	0/3	0/91	NT
Orissa	30/74	0/33	16/58	19/115	Orissa	14/67	NT	1/49	NT
Jaipur	11/40	0/73	31/66	32/250	Jaipur	15/117	1/36	0/130	0/130
Tvpm	NT	0/2	15/39	NT	Tvpm	27/72	1/1	NT	0/10
Alappuzha	NT	3/68	NT	NT	Alappuzha	23/95	0/30	0/125	0/67
Chennai	NT	2/96	43/140	0/65	Chennai	10/140	6/25	1/127	0/12
Ranchi	1/6	NT	6/49	12/32	Ranchi	4/38	0/7	0/57	NT
Vizag	NT	NT	NT	NT	Vizag	11/154	1/6	NT	NT
Jabalpur	NT	NT	NT	24/82	Jabalpur	111/280	0/30	0/4	NT
Patna	17/208	0/8	0/61	12/62	Patna	0/14	NT	0/16	NT
Hydrbd	NT	NT	NT	NT	Hyderabad	27/224	NT	NT	NT
Total	59/328	20/615	127/530	109/720	Total	398/2933	41/388	3/663	0/260

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

Numerator- No. positive, Denominator- No. tested, NT: Not Tested.
Dengue listed includes tests by IgM, PCR & NS1 antigen detection tests. JE, West Nile(WN) & CHIK listed includes tested by IgM & PCR
Port Blair tested 22/54 positives by IFA test