मासिक आई डी एस पी निगरानी विवरणी

Monthly IDSP Surveillance Report

A monthly Surveillance Report from Integrated Disease Surveillance Programme National Health Mission

Investigation of Hepatitis-A in Khed Taluka, District Ratnagiri, Maharashtra

Introduction

High number of cases of jaundice in villages & colonies on the river-front reported since November' 2017 to Nagar Palika Khed, District Ratnagiri. After preliminary survey, Nagar Parishad requested help from health authorities at State to undertake a detailed investigation in this regard. In response, Joint Director, Health Services decided to send State RRT to investigate the situation.

Investigation Team (RRT)

1. Dr. Jitendra Dolare (State Epidemic Officer, Joint Director Office, Pune)

2. Dr. Suhas Bhakare (Deputy Director, State Public Health Laboratory, Pune)

3. Dr. Amol Mankar (State Epidemiologist, Joint Director office, Pune)

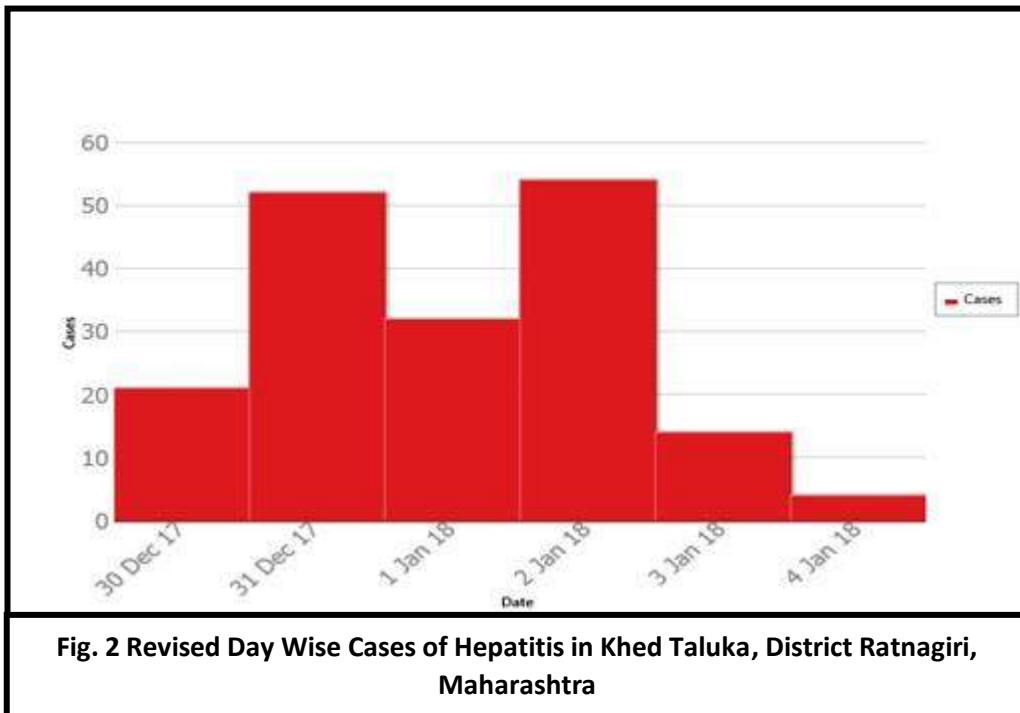4. Mr. Waghmare (Senior Bacteriologist, SPHL, Pune)

The team visited affected area on January 4th, 2018. A preliminary meeting has done with Chief Executive Officer, Nagar Parishad; Taluka Health Officer (Khed), Medical Officer, Nagar Parishad and District Surveillance Officer (Ratnagiri) to review the situation. During this visit the team had visited Taluka Health Office Khed; Nagar Parishad, Khed; Sub-District Hospital, Kalambani; Water supply of Khed Nagar Parishad and common source of water from where all surrounding villages were supplied water for drinking. Team made the following key observations:-

1. Nagar Parishad had very few health staff. During that time, they had only one Medical Officer and two ANM. Public health Department/District Health Office had supported with additional staff and other resources like TCL powder, medicine etc. District health office provided two Medical Officers for this outbreak and 28 health worker for active surveillance in the city. The Nagar Parishad had started creating awareness in city with public announcement system and distributing pamphlets containing information, precautions and care during Hepatitis Outbreak.

Fig. 1: RRT Team discussing about the situation in the area

2. Day wise cases of Hepatitis:-

	Table 2: Day wise distribution of Hepatitis cases in Khed Taluka, District Ratnagiri, Maharashtra		
Sr. No	Date	No Of Cases	Total No. of Water sample taken for testing
1.	30/12/2017	21	0
2.	31/12/2017	52	10
3.	01/01/2018	32	0
4.	02/01/2018	54	29
5.	03/01/2018	14	16
6.	04/01/2018	4	9

Fig. 2 Revised Day Wise Cases of Hepatitis in Khed Taluka, District Ratnagiri, Maharashtra

The total 20 blood samples and 4 stool samples sent to NIV for testing. All 20 samples tested positive for Hepatitis-A by IgM ELISA.
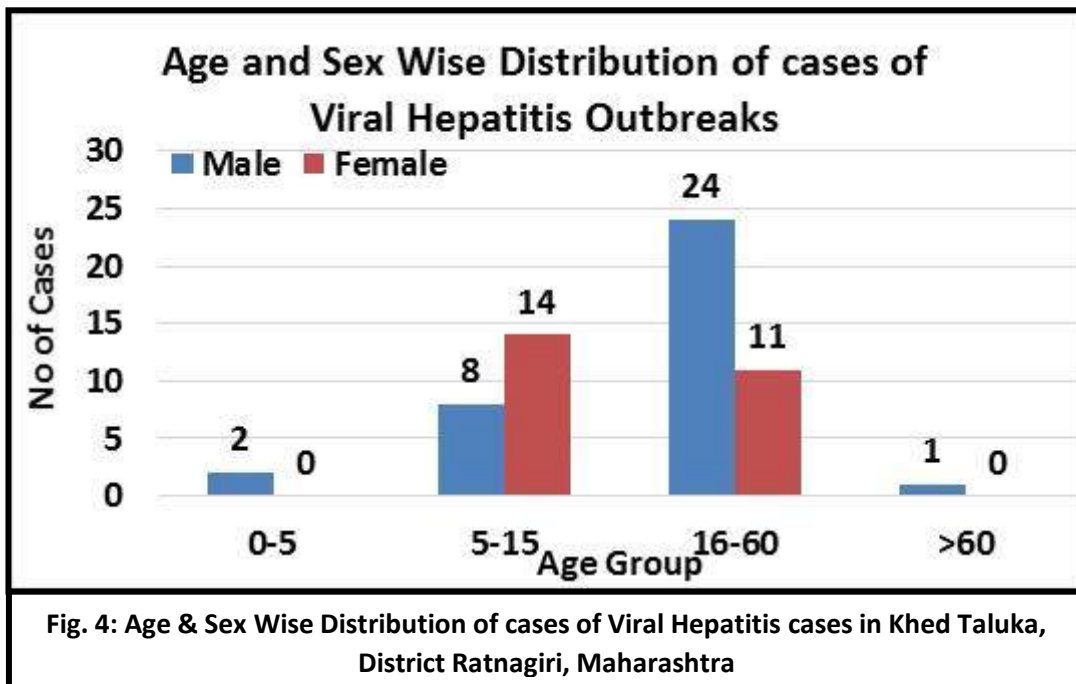
3. The team visited the Sub-District Hospital (SDH) Kalambani to enquire about the patients admitted with jaundice. It was observed while checking record of P & L form, that patient with jaundice started coming to from November 15, 2017. SDH Hospital informed to THO Khed by letter dated December 7, 2017 about this situation.

Fig. 3: Team visited Sub-District Hospital (SDH) Kalambani

4. Analysis of data of admitted patient in SDH hospital by age and sex below is as below:-

Table 2: Age & sex wise distribution of the Hepatitis cases in Khed Taluka, District Ratnagiri, Maharashtra			
Age Group	Sex		Total
	Male	Female	
0-5	02	00	02
5-15	08	14	22
16-60	24	11	35
>60	01	00	01
Total	35	25	60

Fig. 4: Age & Sex Wise Distribution of cases of Viral Hepatitis cases in Khed Taluka, District Ratnagiri, Maharashtra

5. Team analyzed the line list of admitted patient and found that many patients were from villages situated near by Chorad River which was common source of drinking water for Khed city and surrounding villages.
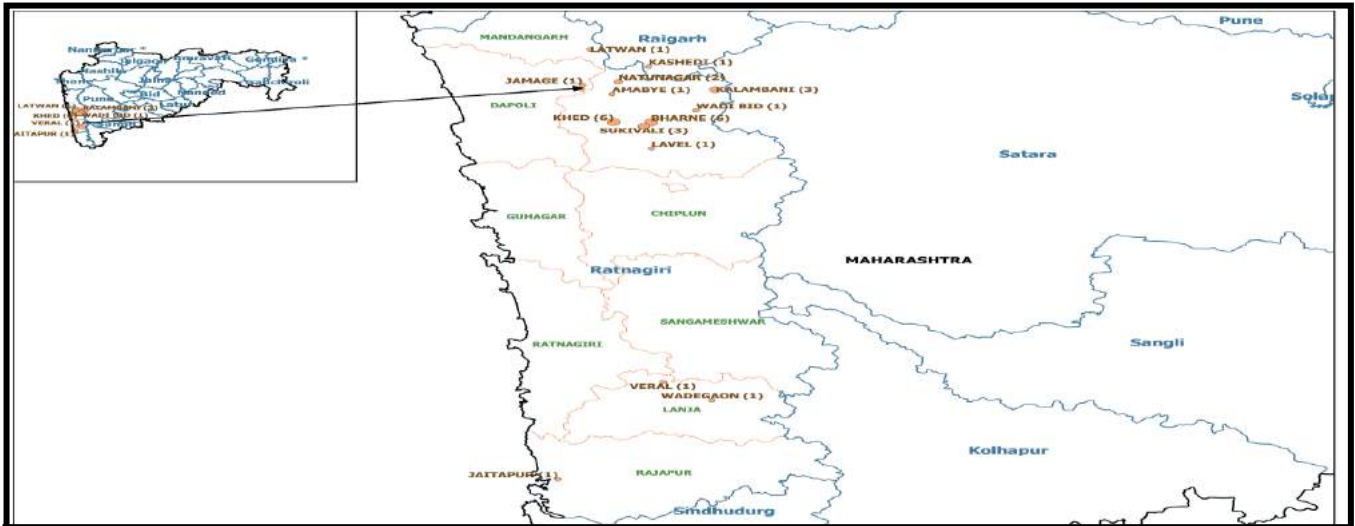
Fig. 5: Affected area - Khed Taluka, District Ratnagiri, Maharashtra

6. The water tanker supplying drinking water from this river to villages, hotels in Khed city without any proper treatment. The river was found contaminated with feces and activities like washing clothes, bathing of cows were also ongoing. The probable cause of fecal contamination was due to the huge migrant labor force that is employed for construction of Mumbai-Goa national highway who have temporary homes there.

Fig. 6: Water supply through tanker in Khed Taluka, District Ratnagiri, Maharashtra

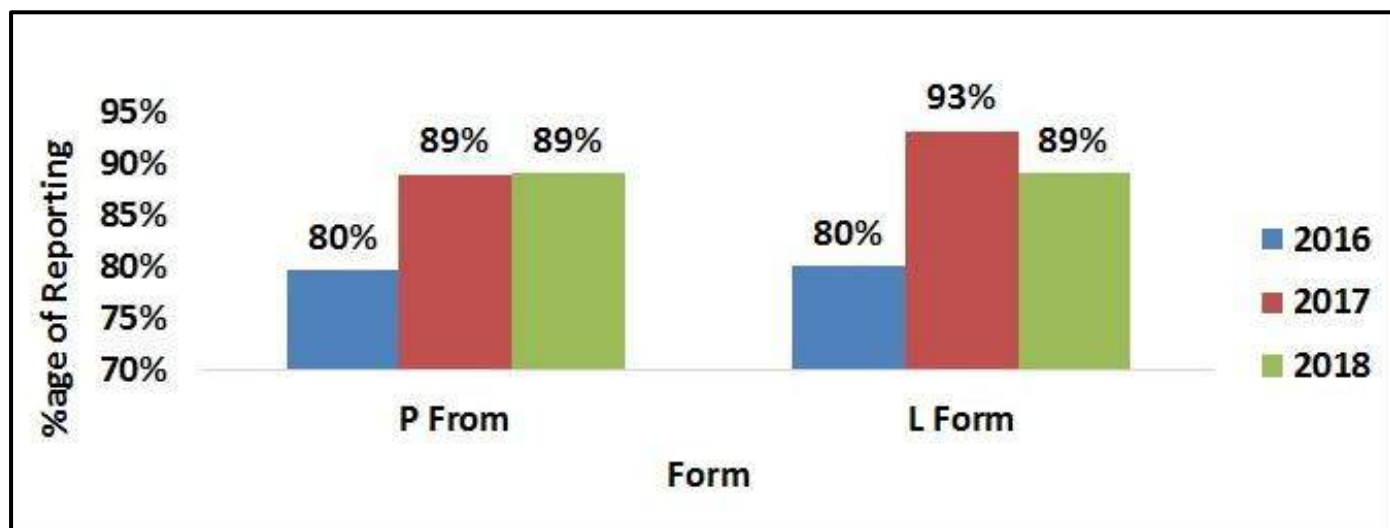* Data extracted from IDSP Portal (www.idsp.nic.in) as on 01 April 2018.

Fig. 7: RU wise Reporting Status based on P & L form during January 2016 - 2018

As shown in Fig 7, in January 2016, 2017 and 2018, the 'P' form reporting percentage (i.e. % RU reporting out of total in P form) was 80%, 89% and 89% respectively across India, for all disease conditions reported under IDSP in P form. Similarly, L form reporting percentage was 80%, 93% and 89% respectively across India for all disease conditions, during the same month for all disease conditions reported under IDSP in L form. The completeness of reporting has significantly increased over the years in both P and L form, thereby improving the quality of surveillance data.
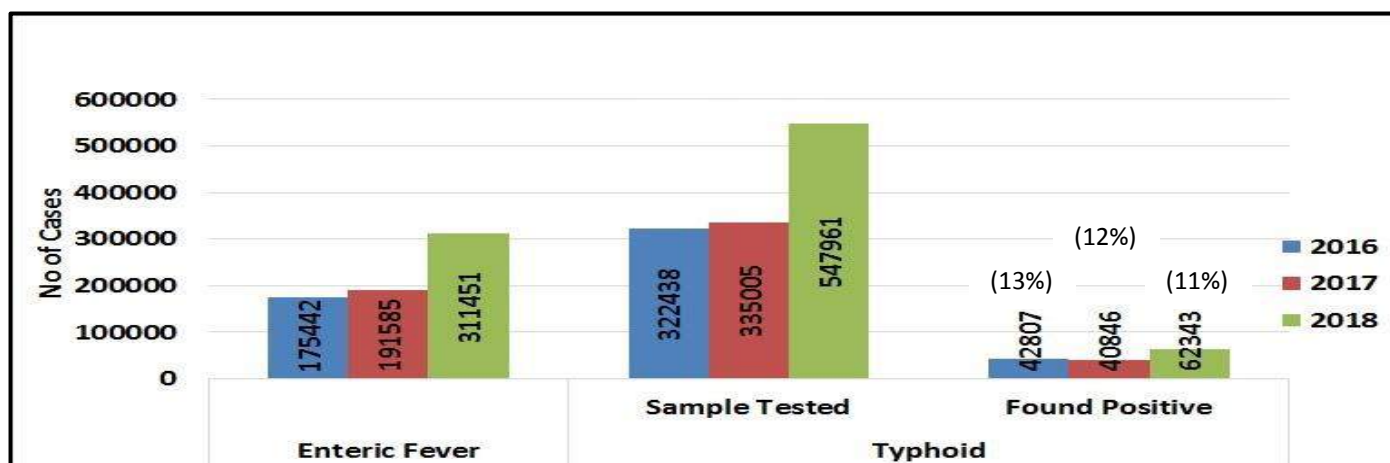

Fig. 8 No. of Enteric Fever Cases reported under P & L form during January 2016 - 2018

As shown in Fig 8, number of presumptive enteric fever cases, as reported by States/UTs in 'P' form was 175442 in January 2016; 191585 in January 2017 and 311451 in January 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in January 2016; 322438 samples were tested for Typhoid, out of which 42807 were found positive. In January 2017; out of 335005 samples, 40846 were found to be positive and in January 2018, out of 547961 samples, 62343 were found to be positive.

Sample positivity has been 13.3%, 12.2% and 11.3% in January month of 2016, 2017 & 2018 respectively.

6

Limitation: The test by which above mentioned samples were tested could not be ascertained, as currently there is no such provision in L form.
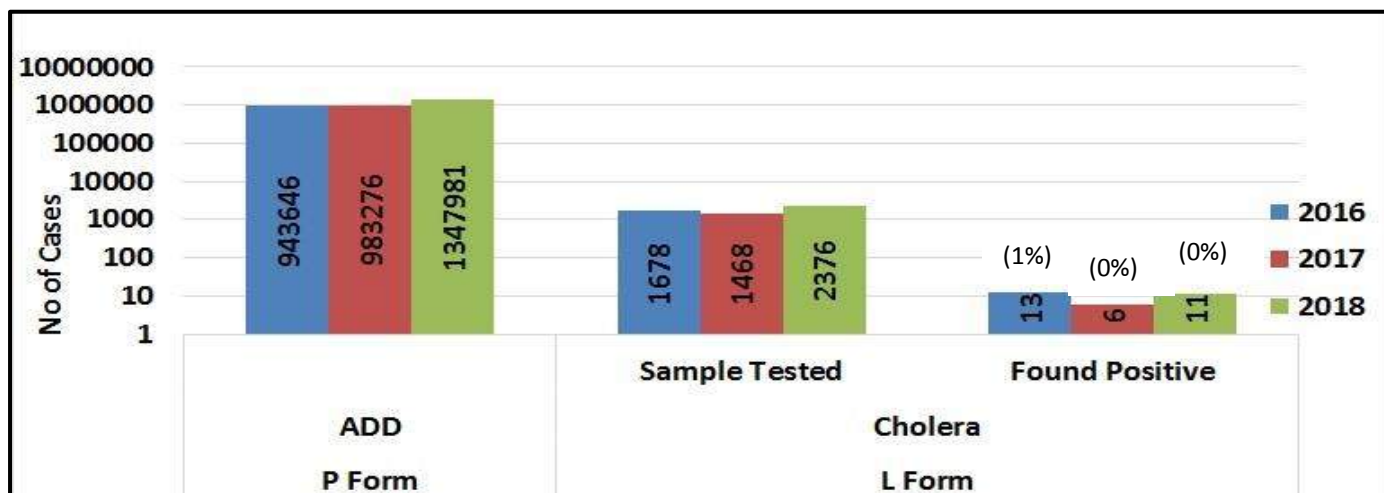

Fig. 9: No. of ADD Cases reported under IDSP in P form & Lab confirmed Cholera cases in L form during January 2016 - 2018

As shown in Fig 9, number of Acute Diarrhoeal Disease cases, as reported by States/UTs in 'P' form was 943646 in January 2016; 983276 in January 2017 and 1347981 in January 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in January 2016, 1678 samples were tested for Cholera out of which 13 tested positive; in January 2017, out of 1468 samples, 6 tested positive for Cholera and in January 2018, out of 2376 samples, 11 tested positive.

Sample positivity of samples tested for Cholera has been 0.77%, 0.41% and 0.46% in January month of 2016, 2017 & 2018 respectively.
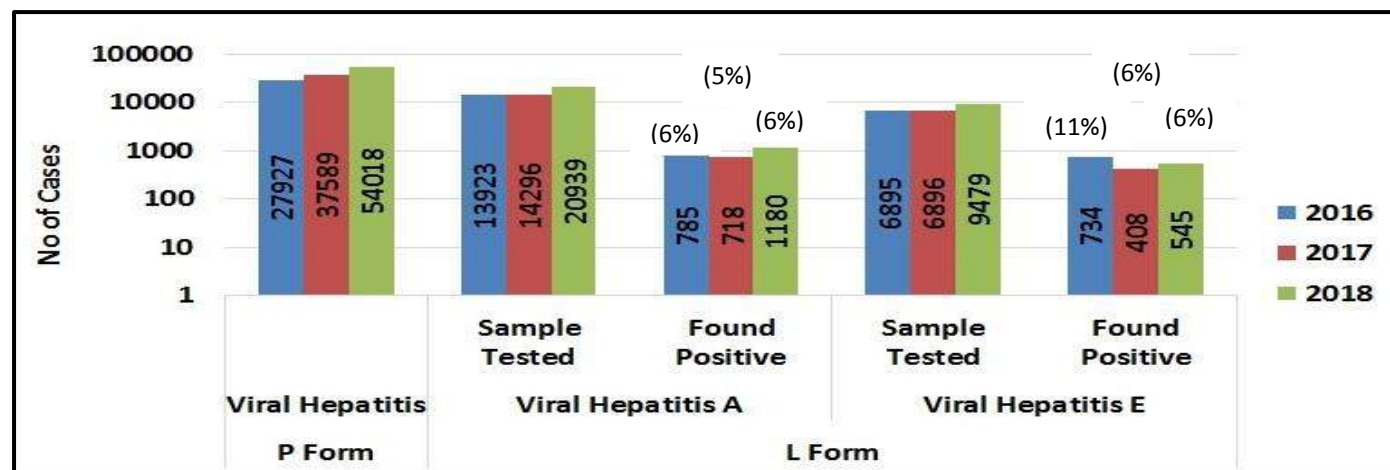

Fig.10: No of Viral Hepatitis Cases reported under IDSP in P form & Viral Hepatitis A & E cases reported under L form during January 2016 - 2018

As shown in Fig 10, the number of presumptive Viral Hepatitis cases was 27927 in January 2016, 37589 in January 2017 and 54018 in January 2018. These presumptive cases were diagnosed on the basis of case definitions provided under IDSP.

As reported in L form for Viral Hepatitis A, in January 2016; 13923 samples were tested out of which 785 were found positive. In January 2017 out of 14296 samples, 718 were found to be positive and in January 2018, out of 20939 samples, 1180 were found to be positive.

Sample positivity of samples tested for Hepatitis A has been 5.6%, 5.0% and 5.6% in January month of 2016, 2017 & 2018 respectively.
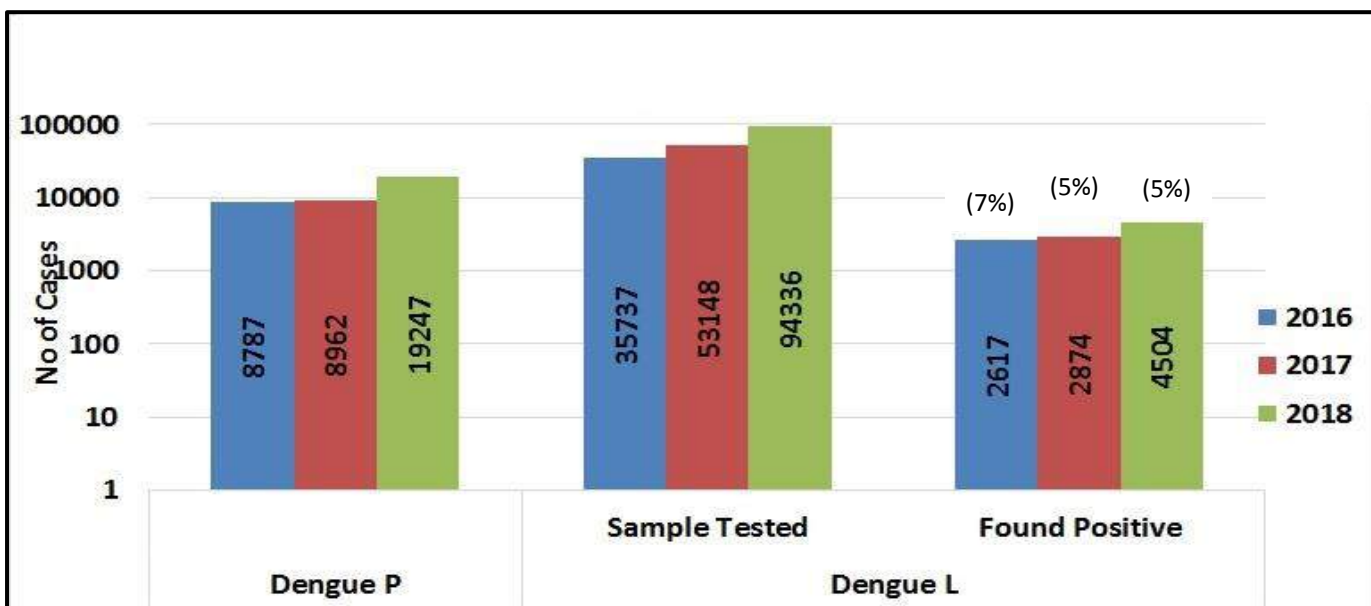
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As reported in L form for Viral Hepatitis E, in January 2016; 6895 samples were tested out of which 734 were found positive. In January 2017; out of 6896 samples, 408 were found to be positive and in January 2018, out of 9479 samples, 545 were found to be positive.

Sample positivity of samples tested for Hepatitis E has been 10.6 %, 5.9% and 5.7% in January month of 2016, 2017 & 2018 respectively.

Fig. 11: No. of Dengue Cases reported under IDSP in P & L form during January 2016 - 2018

As shown in Fig 11, number of presumptive Dengue cases, as reported by States/UTs in 'P' form was 8787 in January 2016; 8962 in January 2017 and 19247 in January 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in January 2016; 35737 samples were tested for Dengue, out of which 2617 were found positive. In January 2017; out of 53148 samples, 2874 were found to be positive and in January 2018, out of 94336 samples, 4504 were found to be positive.

Sample positivity of samples tested for Dengue has been 7.3%, 5.4% and 4.7% in January month of 2016, 2017 & 2018 respectively.
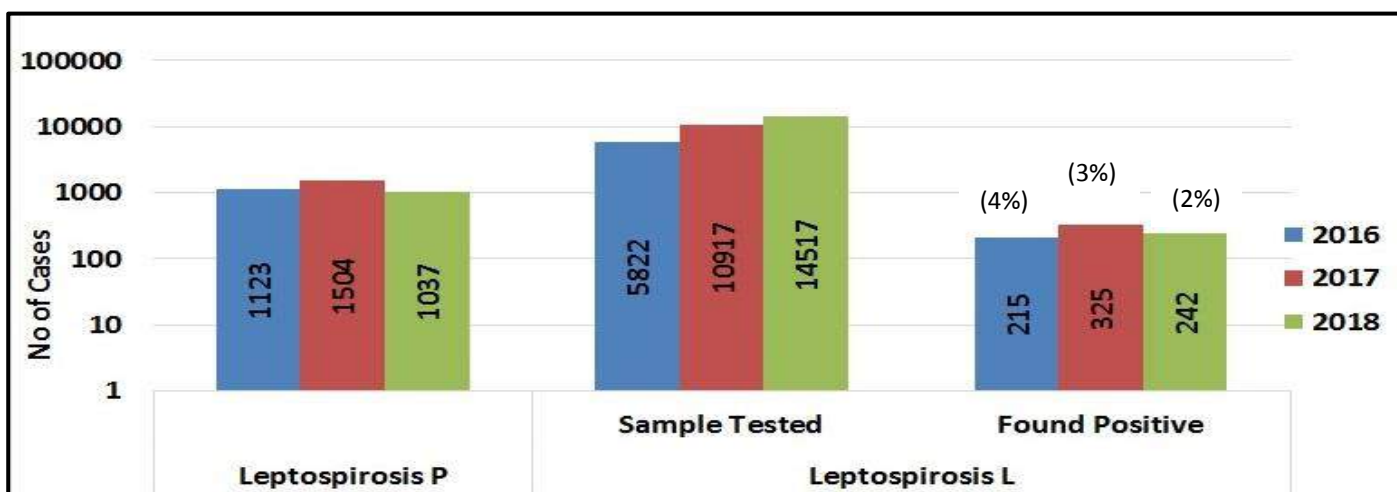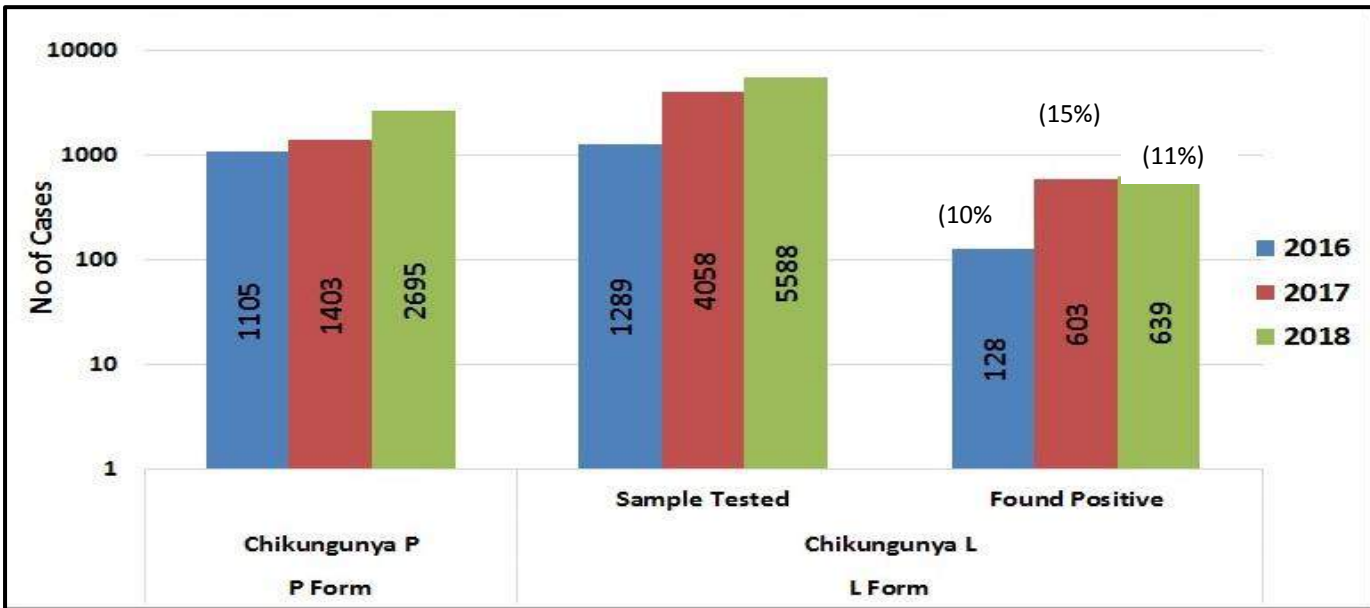

Fig. 12: No. of Leptospirosis Cases reported under IDSP in P & L form during January 2016 - 2018

As shown in Fig 12, number of presumptive Leptospirosis cases, as reported by States/UTs in 'P' form was 1123 in January 2016; 1504 in January 2017 and 1037 in January 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in January 2016; 5822 samples were tested for Leptospirosis, out of which 215 were found positive. In January 2017; out of 10917 samples, 325 were found to be positive and in January 2018, out of 14517 samples, 242 were found to be positive.

Sample positivity of samples tested for Dengue has been 3.7%, 3.0% and 1.7% in January month of 2016, 2017 & 2018 respectively.

Fig. 13: No. of Chikungunya Cases reported under IDSP in P & L form during January 2016 - 2018

As shown in Fig 13, number of presumptive Chikungunya cases, as reported by States/UTs in 'P' form was 1105 in January 2016; 1403 in January 2017 and 2695 in January 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in January 2016; 1289 samples were tested for Chikungunya, out of which 128 were found positive. In January 2017; out of 4058 samples, 603 were found to be positive and in January 2018, out of 5588 samples, 639 were found to be positive.

Sample positivity of samples tested for Chikungunya has been 9.9%, 14.9% and 11.4 % in January month of 2016, 2017 & 2018 respectively.

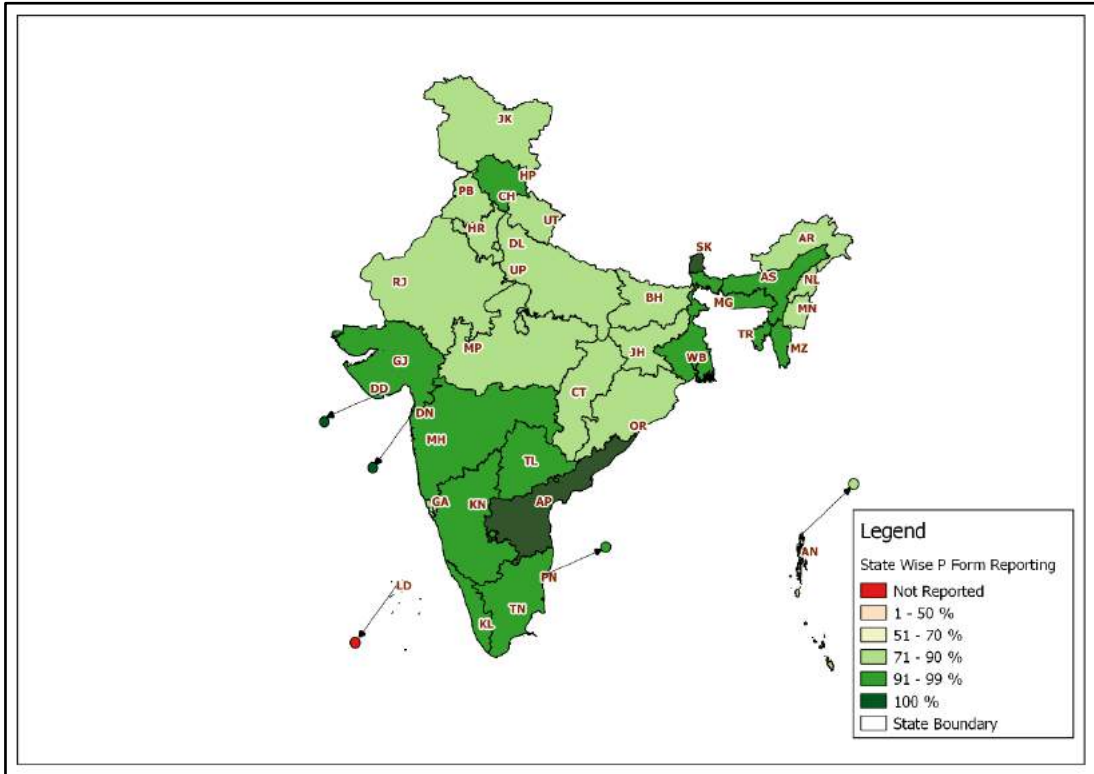**Fig 14: State/UT wise P form completeness % for January 2018**

Fig 15: State/UT wise L form completeness % for January 2018
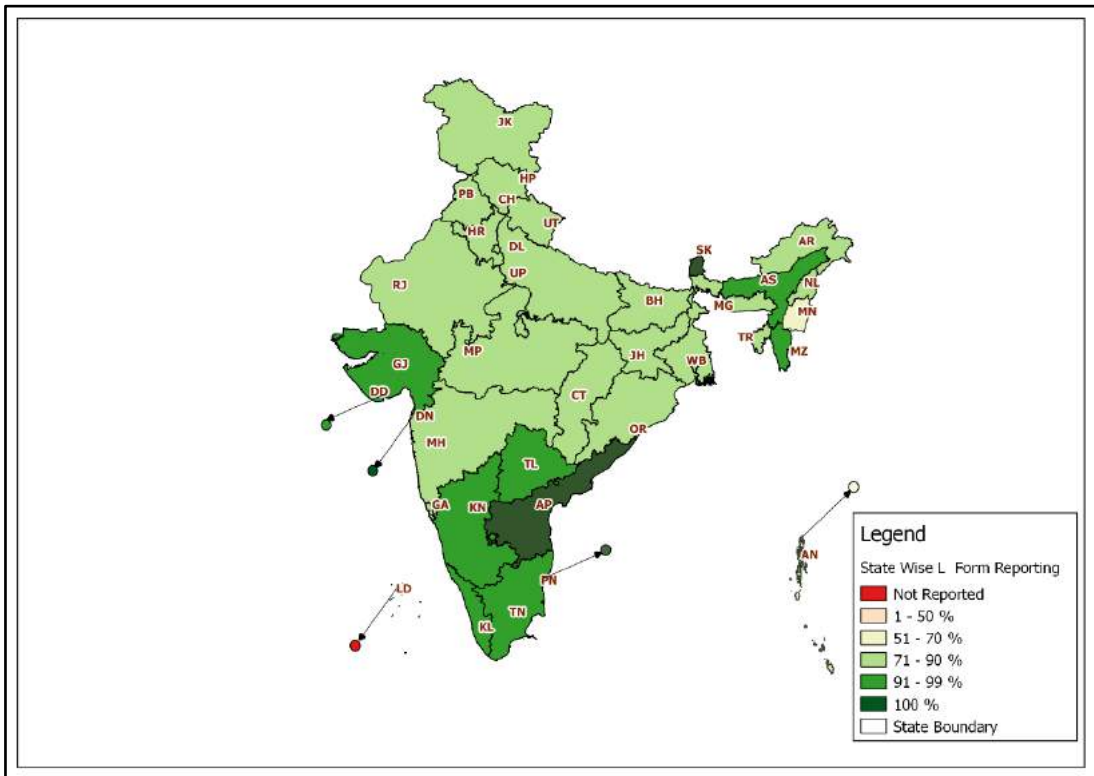
Fig 16: State/UT wise Presumptive Enteric fever cases and outbreaks for January 2018
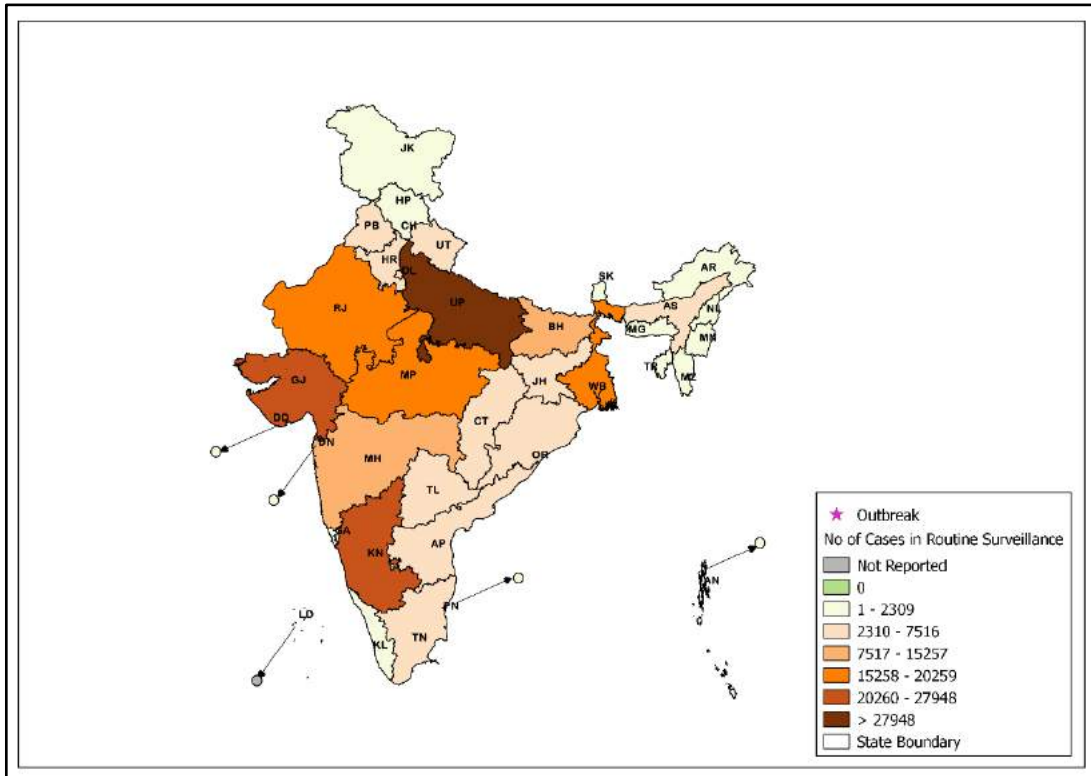

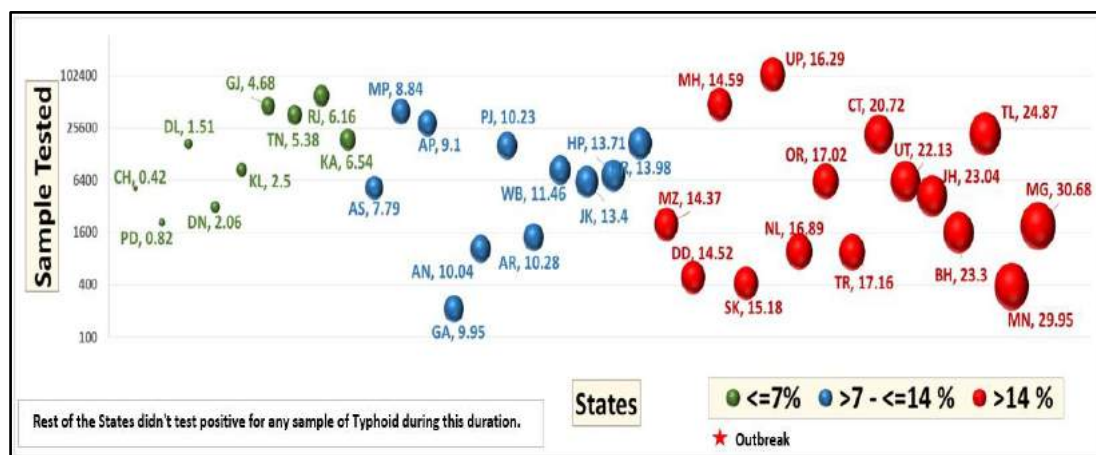**Fig 17: State/UT wise Lab Confirmed Enteric Fever cases and outbreaks for January 2018**

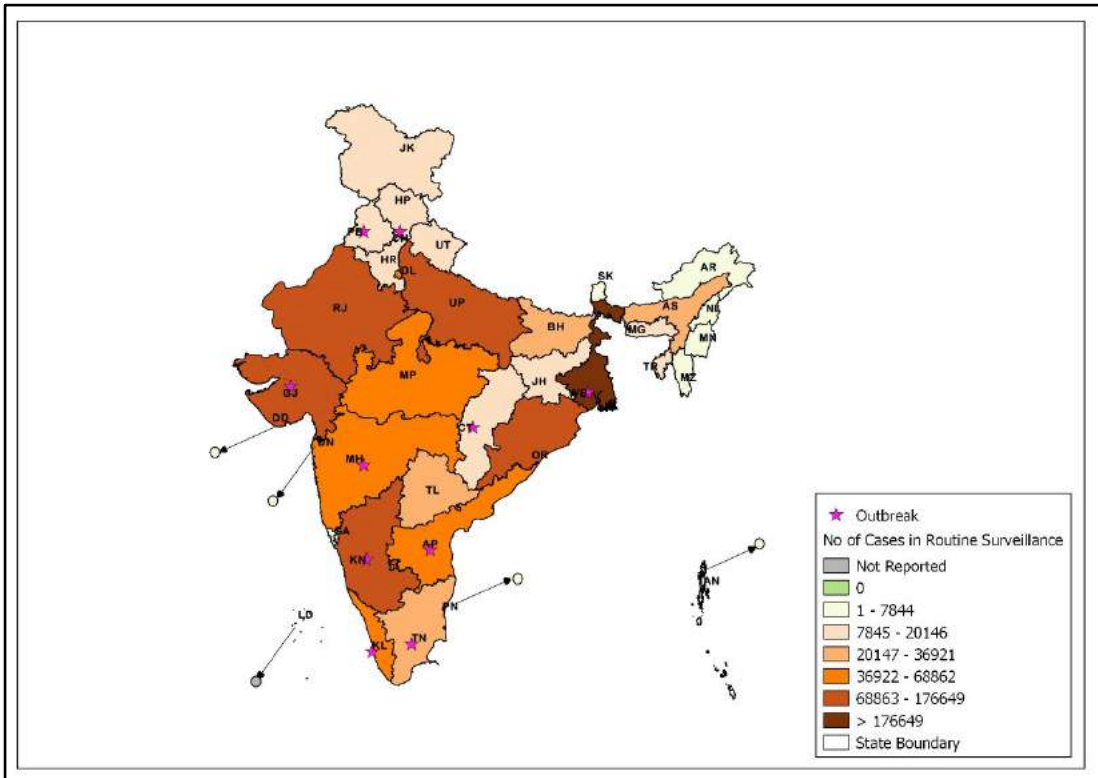**Fig 18: State/UT wise Presumptive ADD cases and outbreaks for January 2018**

Fig 19: State/UT wise Lab Confirmed Cholera cases and outbreaks for January 2018
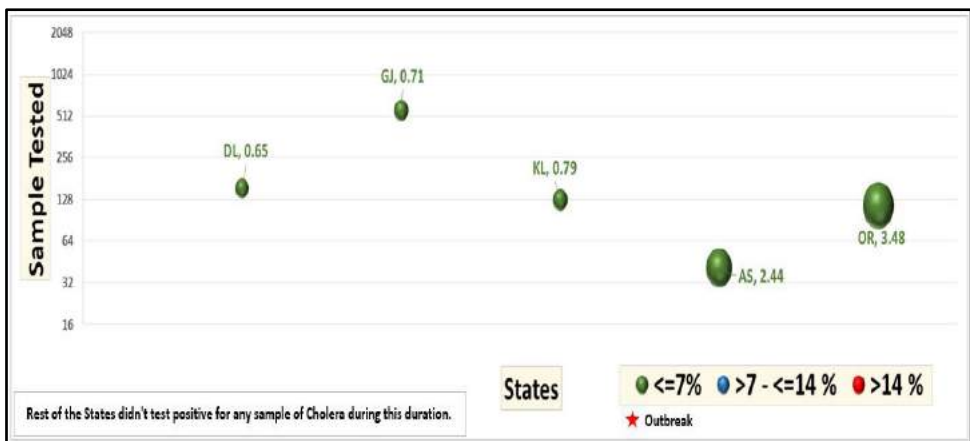
Fig 20: State/UT wise Presumptive Viral Hepatitis cases and outbreaks for January 2018
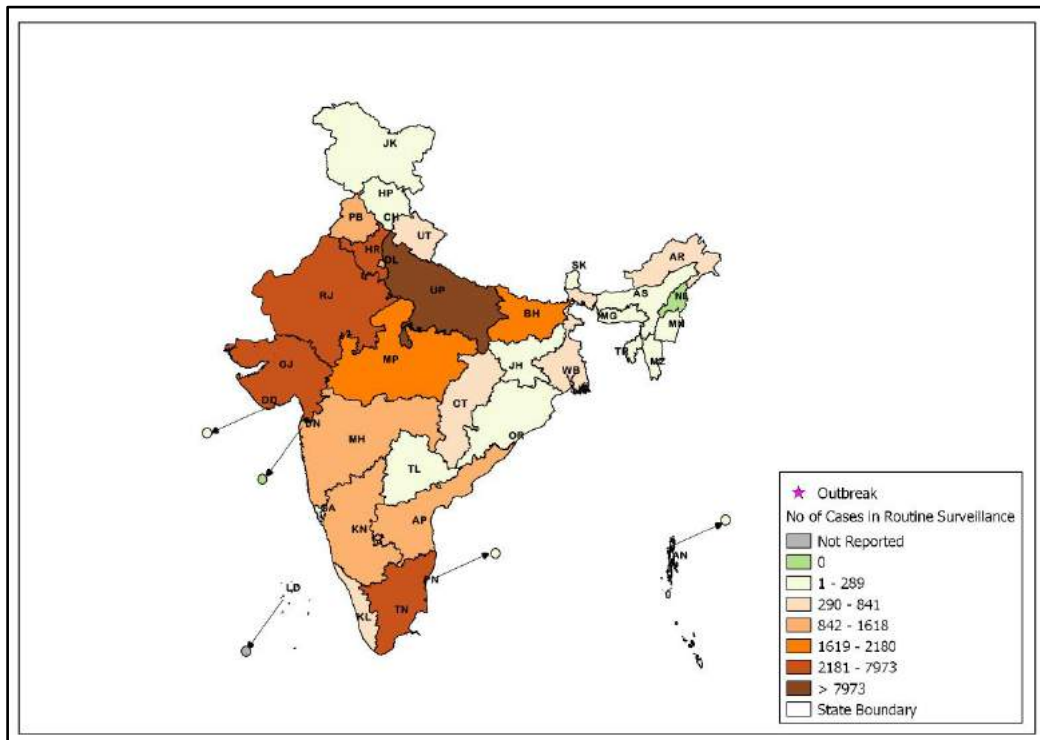

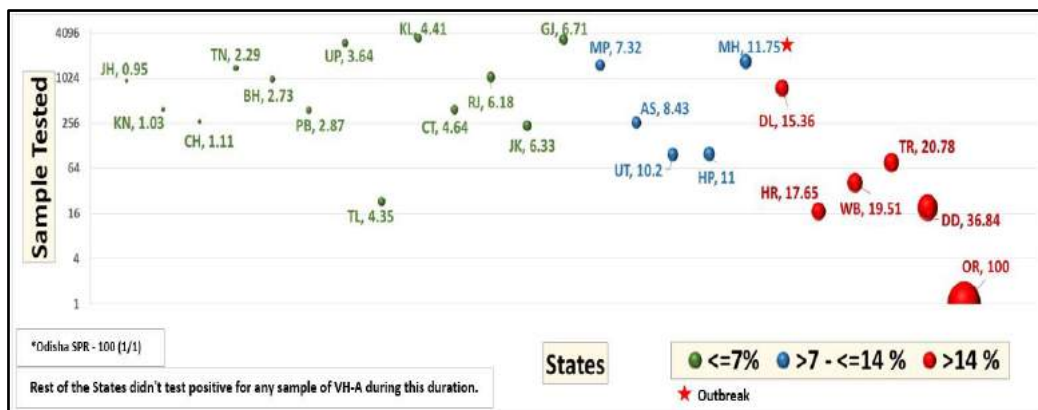**Fig 21: State/UT wise Lab confirmed Viral Hepatitis A cases and outbreaks for January 2018**

Fig 22: State/UT wise Lab confirmed Viral Hepatitis E cases for January 2018
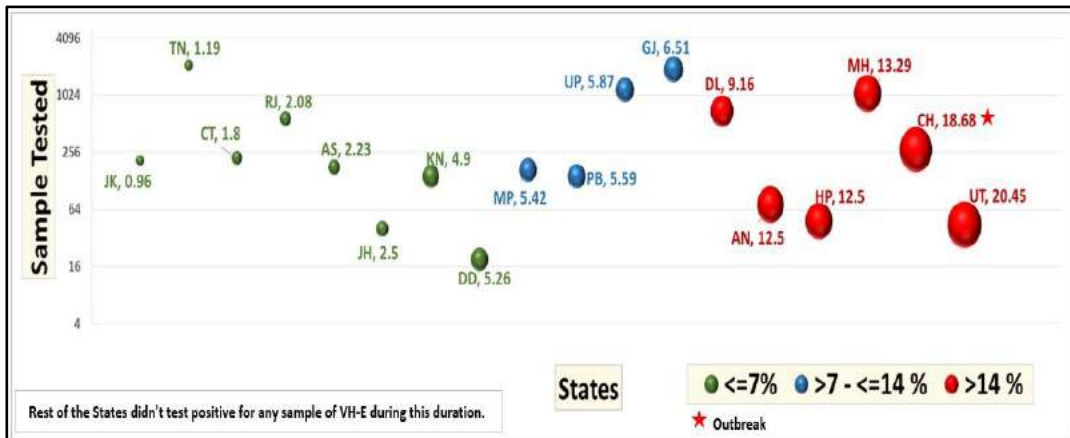

Fig 23: State/UT wise Presumptive Dengue cases & outbreaks for January 2018
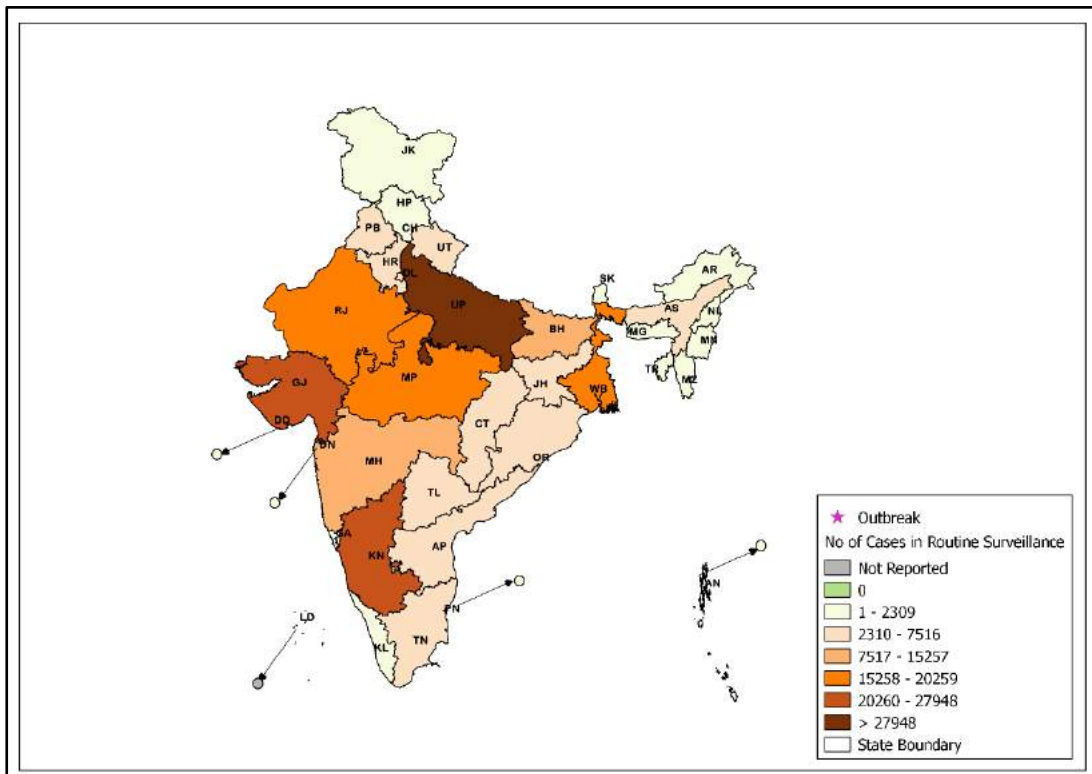
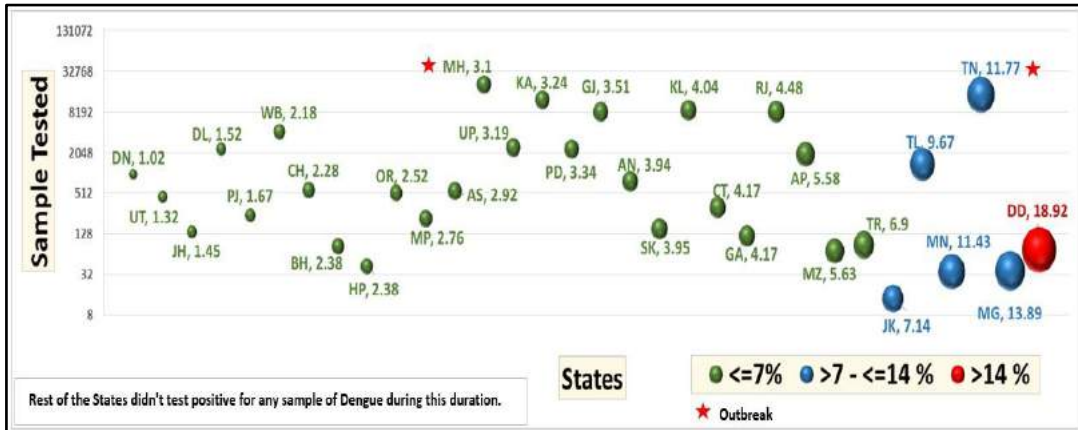**Fig 24: State/UT wise Lab confirmed Dengue cases & outbreaks for January 2018**

Fig 25: State/UT wise Presumptive Leptospirosis cases for January 2018
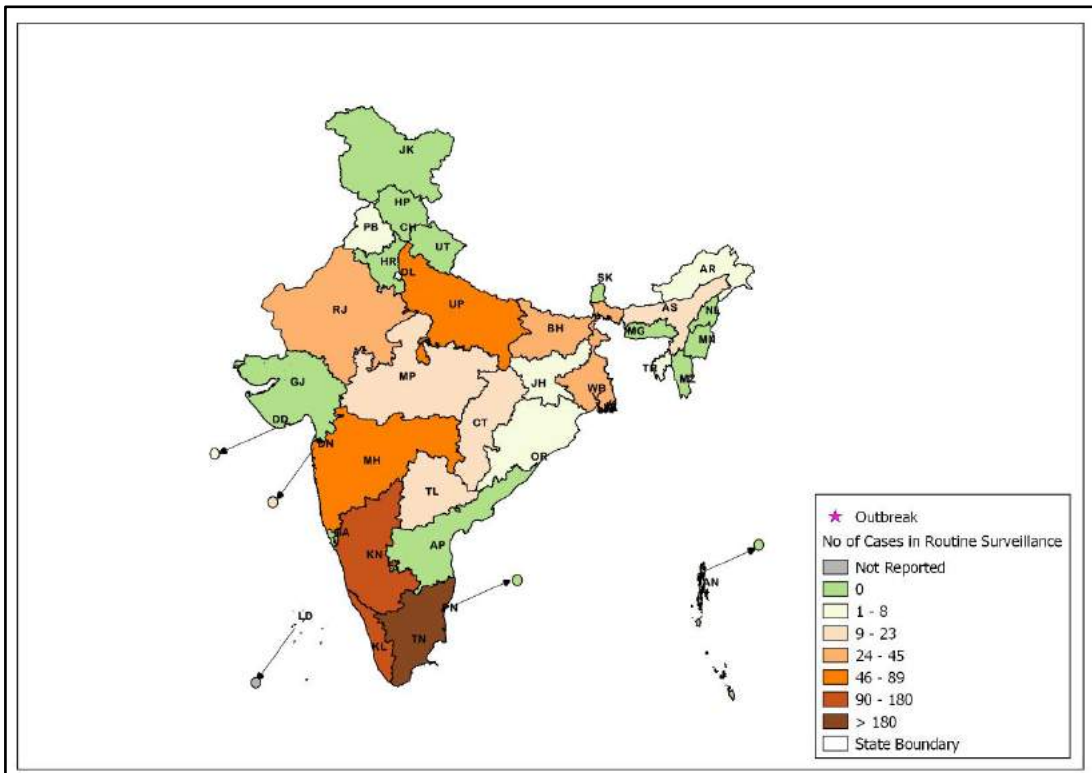
Fig 26: State/UT wise Lab Confirmed Leptospirosis cases & outbreaks for January 2018
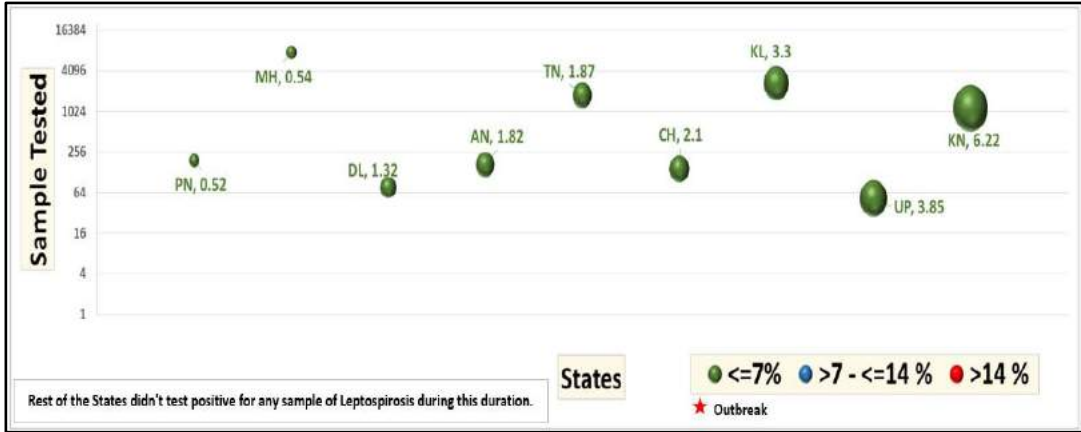

Fig 27: State/UT wise Presumptive Chikungunya cases & outbreaks for January 2018
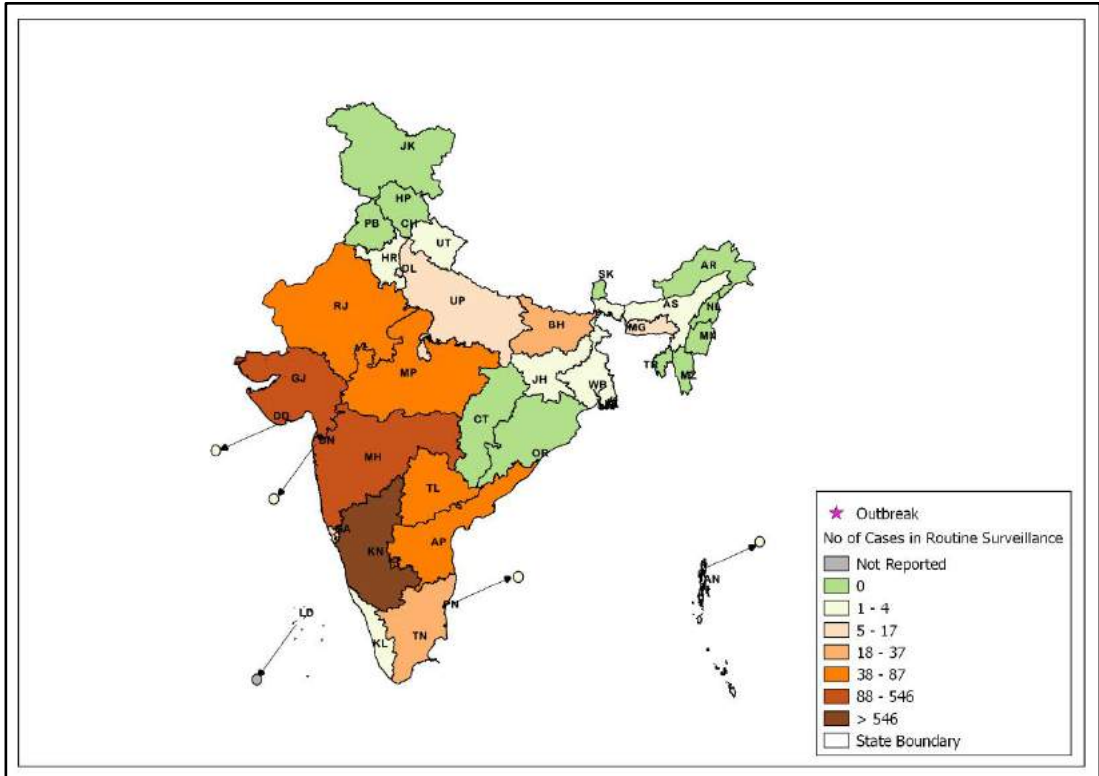
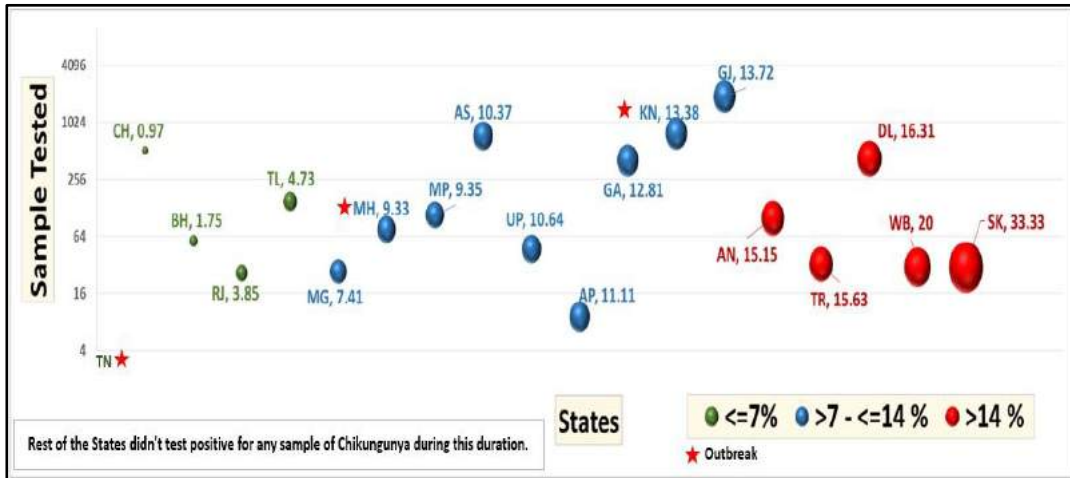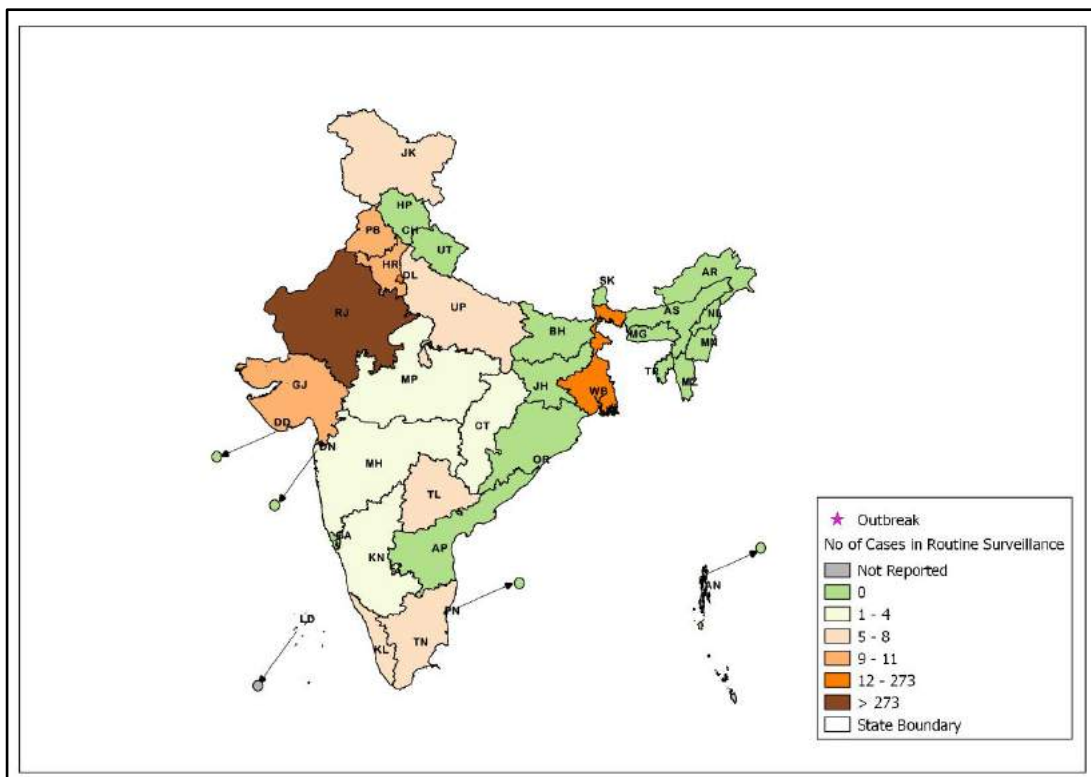Fig 28: State/UT wise Lab Confirmed Chikungunya cases & outbreak for January 2018

Fig 29: State/UT wise Influenza A (H1N1) cases & outbreak for January 2018

Action from the field

Glossary:

- **P form:** Presumptive cases form, in which cases are diagnosed and reported based on typical history and clinical examination by Medical Officers.
- **Reporting units under P form:** Additional PHC/ New PHC, CHC/ Rural Hospitals, Infectious Disease Hospital (IDH), Govt. Hospital / Medical College*, Private Health Centre/ Private Practitioners, Private Hospitals*
- **L form:** Lab confirmed form, in which clinical diagnosis is confirmed by an appropriate laboratory tests.
- **Reporting units under L form:** Private Labs, Government Laboratories, Private Hospitals(Lab.), CHC/Rural Hospitals(Lab.),
- HC/ Additional PHC/ New PHC(Lab.), Infectious Disease Hospital (IDH)(Lab.), Govt. Hospital/Medical College(Lab.), Private Health Centre/ Private Practitioners(Lab.)
- **Completeness %:** Completeness of reporting sites refers to the proportion of reporting sites that submitted the surveillance report (P & L Form) irrespective of the time when the report was submitted.

Case definitions:

- **Enteric Fever: Presumptive**: Any patient with fever for more than one week and with any two of the following: Toxic look, Coated tongue, Relative bradycardia, Splenomegaly, Exposure to confirmed case, Clinical presentation with complications e.g. GI bleeding, perforation, etc. AND/OR Positive serodiagnosis (Widal test)

  Confirmed: A case compatible with the clinical description of typhoid fever with confirmed positive culture (blood, bone marrow, stool, urine) of *S. typhi*/ S paratyphi.

   ARI/ ILI**:-**An acute respiratory infection with fever of more than or equal to 38° C and cough; with onset within the last 10 days.

- **Acute Diarrheal Disease: Presumptive Acute Diarrheal Disease (Including Acute Gastroenteritis):** Passage of 3 or more loose watery stools in the past 24 hours. (With or without vomiting).
- **Confirmed Cholera**: A case of acute diarrhoea with isolation and identification of Vibrio cholera serogroup O1 or O139 by culture of a stool specimen.
- **Viral Hepatitis**: **Presumptive**: Acute illness typically including acute jaundice, dark urine, anorexia, malaise, extreme fatigue, and right upper quadrant tenderness.

  Confirmed: Hepatitis A: A case compatible with the clinical description of acute hepatitis with demonstration of anti-HAV IgM in serum sample.

  Confirmed: Hepatitis E: A case compatible with the clinical description of acute hepatitis with demonstration of anti-HEV IgM in serum sample.

- **Dengue**: **Presumptive**: An acute febrile illness of 2-7 days duration with two or more of the mentioned manifestations:
    - Headache, Retro-orbital pain, Myalgia, Arthralgia, Rash, haemorrhagic manifestations, leukopenia, or Non-ELISA based NS1 antigen/IgM positive. (A positive test by RDT will be considered as probable due to poor sensitivity and specificity of currently available RDTs.)

  Confirmed: A case compatible with the clinical description of dengue fever with at least one of the following:

    - Demonstration of dengue virus NS-1 antigen in serum sample by ELISA.
    - Demonstration of IgM antibodies by IgM antibody capture ELISA in single serum sample.
    - IgG seroconversion in paired sera after 2 weeks with fourfold increase of IgG titre.
    - Detection of viral nucleic acid by polymerase Chain reaction (PCR).
    - Isolation of the dengue virus (virus culture +ve) from serum, plasma, leucocytes.
      (Source – Dengue National guidelines, NVBDCP 2014)

- **Leptospirosis Case Definition**: **Presumptive Leptospirosis**: Acute febrile illness with headache, myalgia and prostration associated with a history of exposure to infected animals or an environment contaminated with animal urine With one or more of the following:
  - Calf muscle tenderness
  - Conjunctival suffusion
  - Oliguria or anuria and/or proteinuria
  - Jaundice
  - Haemorrhagic manifestations (intestines, lung)
  - Meningeal irritation
  - GI symptoms (Nausea/ Vomiting/ Abdominal pain/Diarrhoea)
- And/or one of the following:-
  - A positive result in IgM based immune- assays, slide agglutination test or latex agglutination test or immunochromatographic test.
  - A Microscopic Agglutination Test (MAT) titre of 100/200/400 or above in single sample based on endemicity.
  - Demonstration of leptospires directly or by staining methods

Lab Confirmed Leptospirosis: A case compatible with the clinical description of leptospirosis with at least one of the following:
- Isolation of leptospires from clinical specimen.
- Four fold or greater rise in the MAT titre between acute and convalescent phase serum specimens run in parallel. (Source: -National Guidelines on Diagnosis, Case Management Prevention and Control of Leptospirosis NCDC 2015).

- **Chikungunya case definition: Presumptive Case Definition**: An acute illness characterised by sudden onset of fever with any of the following symptoms: headache, backache, photophobia, severe arthralgia and rash.
  - Lab confirmed: A case compatible with the clinical description of chikungunya fever with at least one of the following: Demonstration of IgM antibodies by IgM antibody capture ELISA in a single serum sample.
  - Detection of viral nucleic acid by PCR.
  - Isolation of chikungunya virus from clinical specimen. (Source – Mid Term Plan Guidelines, NVBDCP 2013.

Data shown in this bulletin are provisional, based on weekly reports to IDSP by State Surveillance Unit. Inquiries, comments and feedback regarding the IDSP Surveillance Report, including material to be considered for publication, should be directed to: Director, NCDC 22, Sham Nath Marg, Delhi 110054. Email: dirnicd@nic.in & idsp-npo@nic.in

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