# Disease Alert
# प्रकोप चेतावनी

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

### Inside

## Measles Outbreak investigation of Samrikittarampur, Block Boarijore, District Godda, Jharkhand

### Introduction

High number of cases of fever with rash were reported from village Samrikittarampur, Block Boarijore, District Godda, Jharkhand.

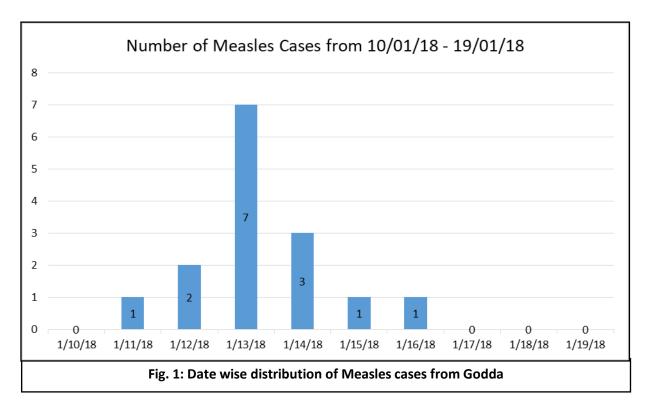The village has a population of 830.

### Investigation By RRT

The Rapid Response Team (RRT) consisted of:-
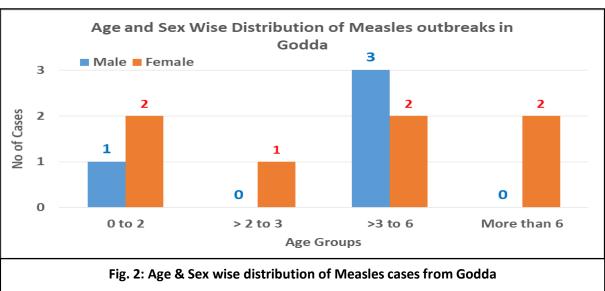
1. Dr. Ujjwal Kumar Sinha, District Epidemiologist, IDSP
2. Mr.Bishnu Singh, FV-WHO
3. Miss Merry Hansda, ANM
4. Md. Iftikhar, Lab. Technian

The RRT visited the affected areas and did active search of cases in community and local hospitals. During the search, 11 cases were identified.

It was found that the primary case from the same Village with onset of rashes as on 3/01/2018 which was not reported by the ANM. It is possible that infection may have spread in congested community by Droplet Infection and by Contact Transmission.

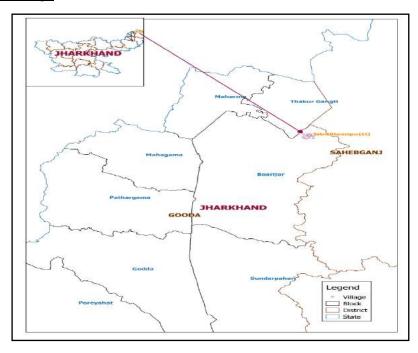All the cases were treated symptomatically.

**Fig. 1: Date wise distribution of Measles cases from Godda**



**Fig. 2: Age & Sex wise distribution of Measles cases from Godda**

As evident from graph above, most of the children were in age group of 1-5 years

**Regarding Immunization Coverage**

According to HMIS data, in period April – Dec'2017, Measles vaccination coverage in Jharkhand in children upto 1 years was 75.5%.

In district Godda, RI coverage in FY 2016-17 was 99% while in FY 2017-18 it dropped to 96%.

**Location of the affected village**



**Lab Results**

5 serum samples were sent to Institute of Serology, Kolkata. All samples tested positive for Measles by IgM ELISA
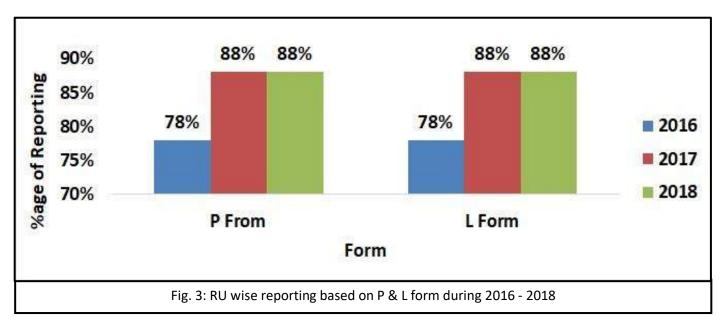
**Follow-up and IEC**

Immunization drives were carried out in the community, along with providing of Vitamin-A prophylaxis.
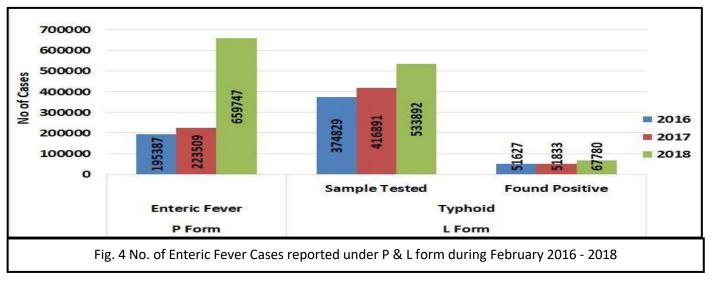
All the villagers were educated regarding the prognosis and transmission of the diseases

* Data extracted from IDSP Portal (www.idsp.nic.in) as on 25 April, 2017.



Fig. 3: RU wise reporting based on P & L form during 2016 - 2018

As shown in Fig 3, in February 2016, 2017 and 2018, the 'P' form reporting percentage (i.e. % RU reporting out of total in P form) was 78%, 88% and 88% respectively across India, for all disease conditions reported under IDSP in P form. Similarly, L form reporting percentage was 78%, 88% and 88% 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 increased over the years in both P and L form, thereby improving the quality of surveillance data**.**



Fig. 4 No. of Enteric Fever Cases reported under P & L form during February 2016 - 2018

As shown in Fig 4, number of presumptive enteric fever cases, as reported by States/UTs in 'P' form was 195387 in February 2016; 223509 in February 2017 and 659747 in February 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in February 2016; 374829 samples were tested for Typhoid, out of which 51627 were found positive. In February 2017; out of 416891 samples, 51833 were found to be positive and in February 2018, out of 533892 samples, 67780 were found to be positive.

Sample positivity has been 13.8%, 12.4% and 12.7% in February month of 2016, 2017 & 2018 respectively.

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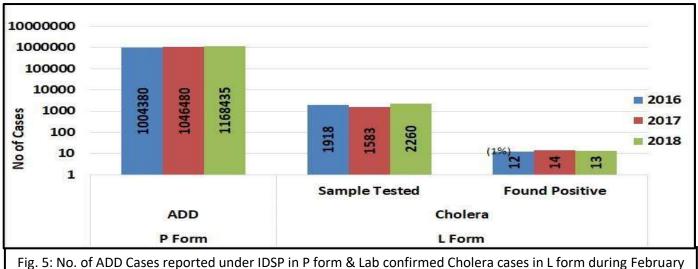


Fig. 5: No. of ADD Cases reported under IDSP in P form & Lab confirmed Cholera cases in L form during February 2016 - 2018

As shown in Fig 5, number of Acute Diarrhoeal Disease cases, as reported by States/UTs in 'P' form was 1004380 in February 2016; 1046480 in February 2017 and 1168435 in February 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in February 2016, 1918 samples were tested for Cholera out of which 12 tested positive; in February 2017, out of 1583 samples, 14 tested positive for Cholera and in February 2018, out of 2260 samples, 13 tested positive.

Sample positivity of samples tested for Cholera has been 0.62%, 0.88% and 0.57% in February month of 2016, 2017 & 2018 respectively.
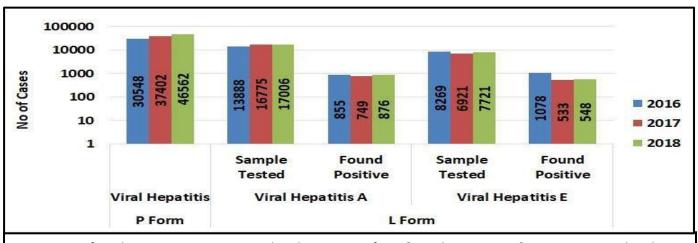


Fig. 6: No of Viral Hepatitis Cases reported under IDSP in P form & Viral Hepatitis A & E cases reported under L form during February 2016 - 2018
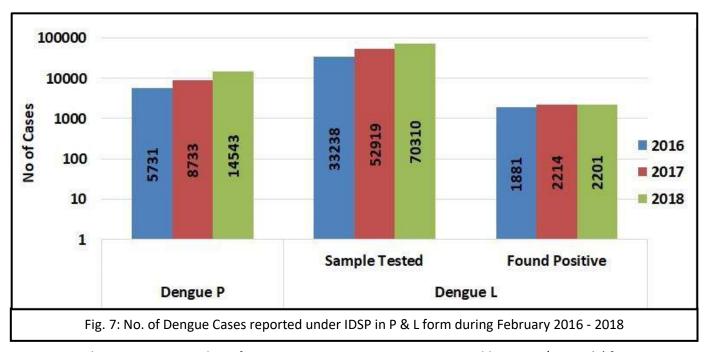
As shown in Fig 6, the number of presumptive Viral Hepatitis cases was 30548 in February 2016, 37402 in February 2017 and 46562 in February 2018. These presumptive cases were diagnosed on the basis of case definitions provided under IDSP.

As reported in L form for Viral Hepatitis A, in February 2016; 13888 samples were tested out of which 855 were found positive. In February 2017 out of 16775 samples, 749 were found to be positive and in February 2018, out of 17006 samples, 876 were found to be positive.

Sample positivity of samples tested for Hepatitis A has been 6.2%, 4.5% and 5.2% in February month of 2016, 2017 & 2018 respectively.

As reported in L form for Viral Hepatitis E, in February 2016; 8269 samples were tested out of which 1078 were found positive. In February 2017; out of 6921 samples, 533 were found to be positive and in February 2018, out of 7721 samples, 548 were found to be positive.
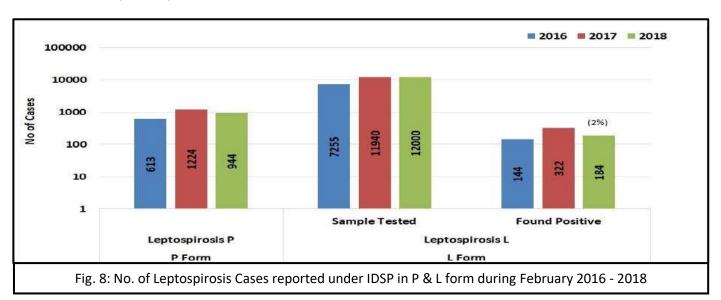
Sample positivity of samples tested for Hepatitis E has been 13.0 %, 7.7% and 7.1% in February month of 2016, 2017 & 2018 respectively.



Fig. 7: No. of Dengue Cases reported under IDSP in P & L form during February 2016 - 2018

As shown in Fig 7, number of presumptive Dengue cases, as reported by States/UTs in 'P' form was 5731 in February 2016; 8733 in February 2017 and 14543 in February 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in February 2016; 33238 samples were tested for Dengue, out of which 1881 were found positive. In February 2017; out of 52919 samples, 2214 were found to be positive and in February 2018, out of 70310 samples, 2201 were found to be positive.
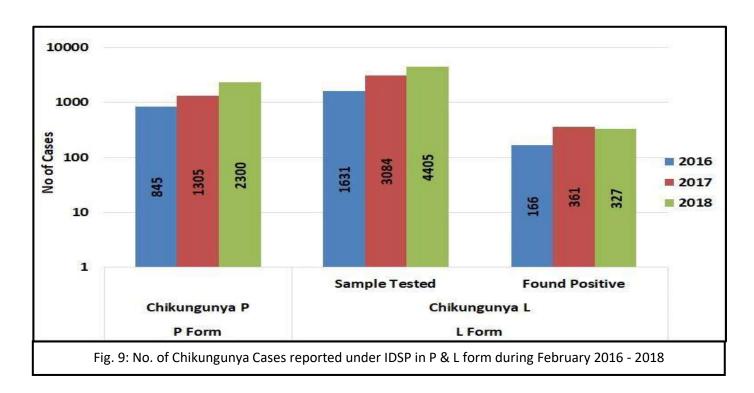
Sample positivity of samples tested for Dengue has been 5.7%, 4.2% and 3.1% in February month of 2016, 2017 & 2018 respectively.



Fig. 8: No. of Leptospirosis Cases reported under IDSP in P & L form during February 2016 - 2018

As shown in Fig 8, number of presumptive Leptospirosis cases, as reported by States/UTs in 'P' form was 613 in February 2016; 1224 in February 2017 and 944 in February 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in February 2016; 7255 samples were tested for Leptospirosis, out of which 144 were found positive. In February 2017; out of 11940 samples, 322 were found to be positive and in February 2018, out of 12000 samples, 184 were found to be positive.

Sample positivity of samples tested for Dengue has been 2.0%, 2.7% and 1.5% in February month of 2016, 2017 & 2018 respectively.



Fig. 9: No. of Chikungunya Cases reported under IDSP in P & L form during February 2016 - 2018

As shown in Fig 9, number of presumptive Chikungunya cases, as reported by States/UTs in 'P' form was 845 in February 2016; 1305 in February 2017 and 2300 in February 2018. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in February 2016; 1631 samples were tested for Chikungunya, out of which 166 were found positive. In February 2017; out of 3084 samples, 361 were found to be positive and in February 2018, out of 4405 samples, 327 were found to be positive.

Sample positivity of samples tested for Chikungunya has been 10.2%, 11.7% and 7.4 % in February month of 2016, 2017 & 2018 respectively.

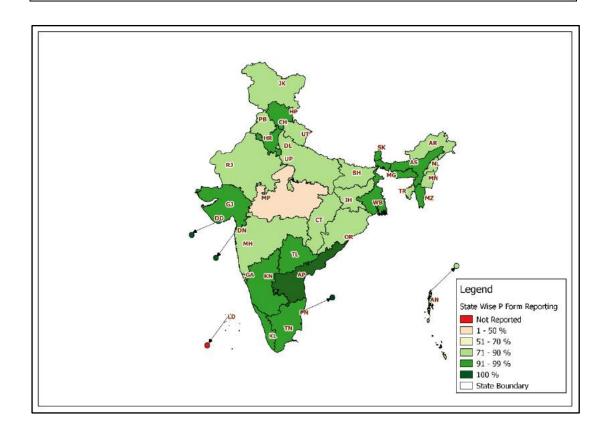**Fig 10: State/UT wise P form completeness % for February 2018**



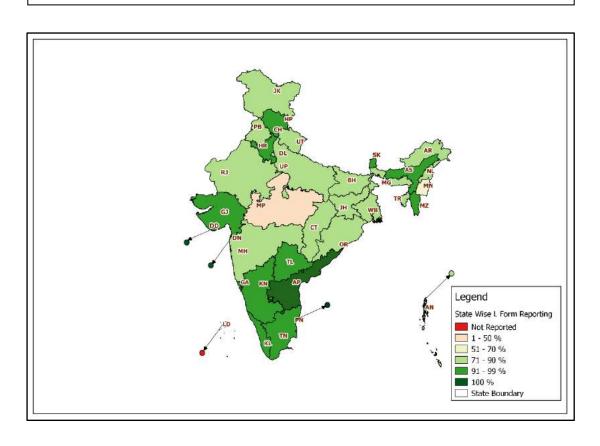**Fig 11: State/UT wise L form completeness % for February 2018**

**Fig 12: State/UT wise Presumptive Enteric fever cases and outbreaks for February 2018**
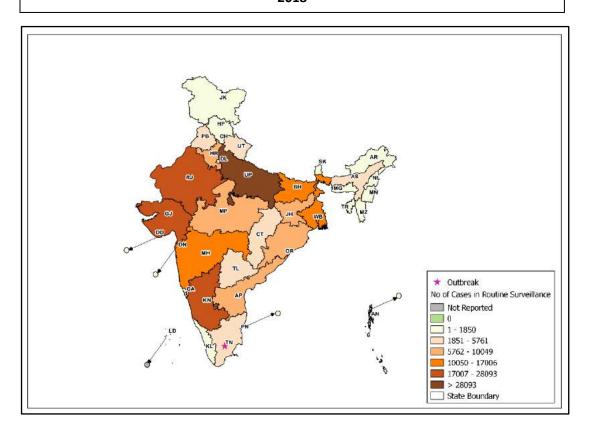


**Fig 13: State/UT wise Lab Confirmed Enteric Fever cases and outbreaks for February 2018**
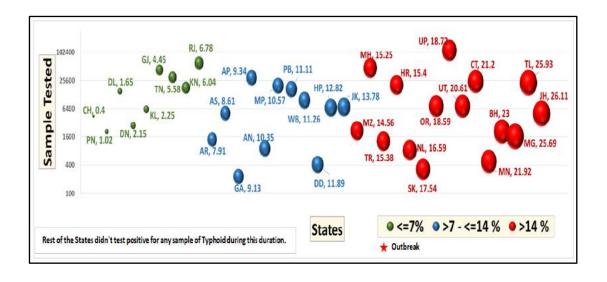
**Fig 14: State/UT wise Presumptive ADD cases and outbreaks for February 2018**
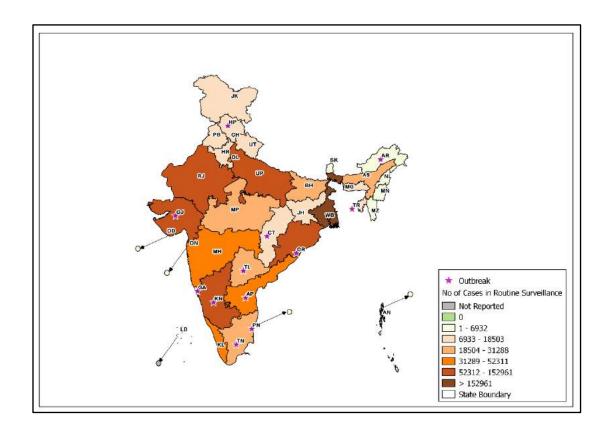


**Fig 15: State/UT wise Lab Confirmed Cholera cases and outbreaks for February 2018**
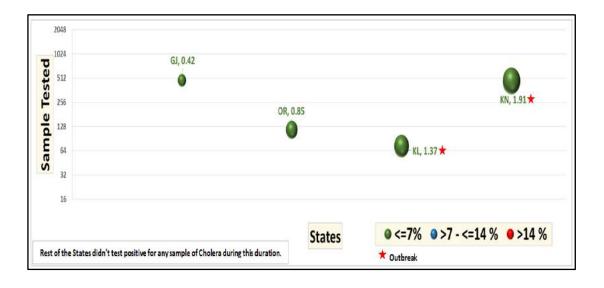
**Fig 16: State/UT wise Presumptive Viral Hepatitis cases and outbreaks for February 2018**
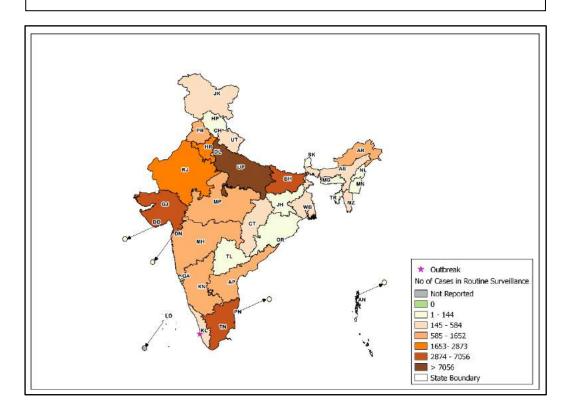


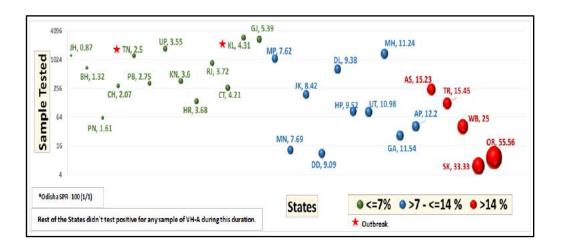**Fig 17: State/UT wise Lab confirmed Viral Hepatitis A cases and outbreaks for February 2018**

**Fig 18: State/UT wise Lab confirmed Viral Hepatitis E cases for February 2018**
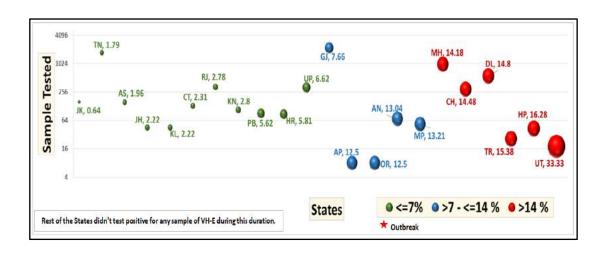


**Fig 19: State/UT wise Presumptive Dengue cases & outbreaks for February 2018**
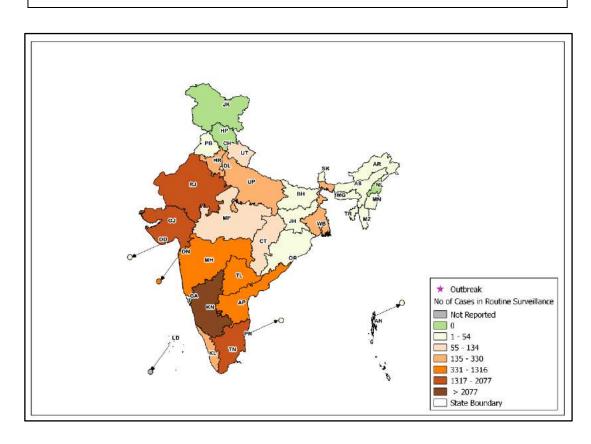
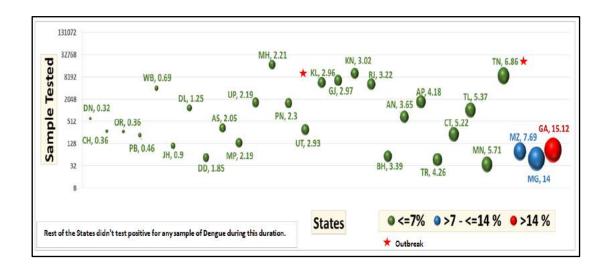**Fig 20: State/UT wise Lab confirmed Dengue cases & outbreaks for February 2018**



**Fig 21: State/UT wise Presumptive Leptospirosis cases for February 2018**
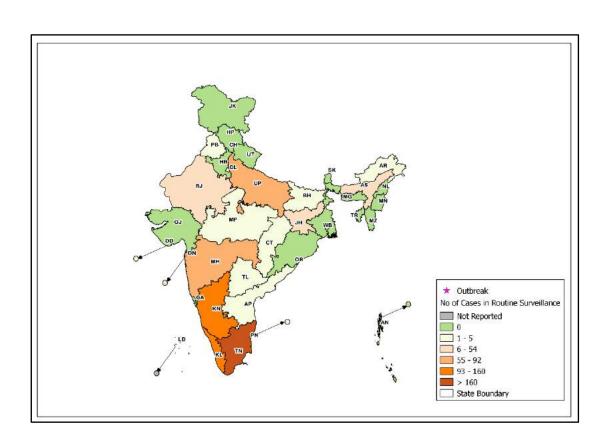
**Fig 22: State/UT wise Lab Confirmed Leptospirosis cases & outbreaks for February 2018**
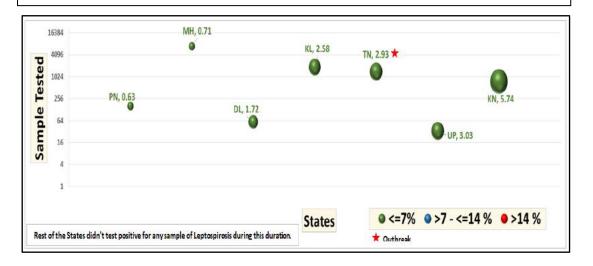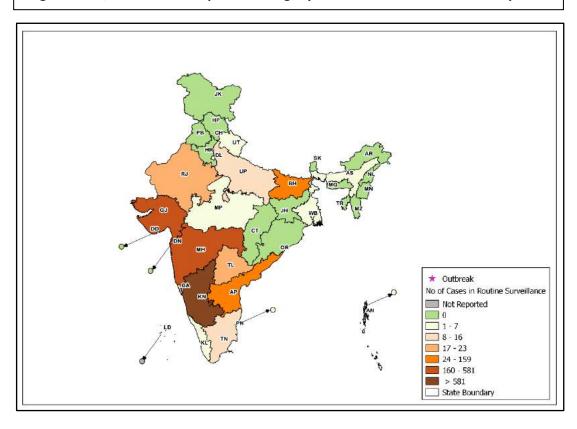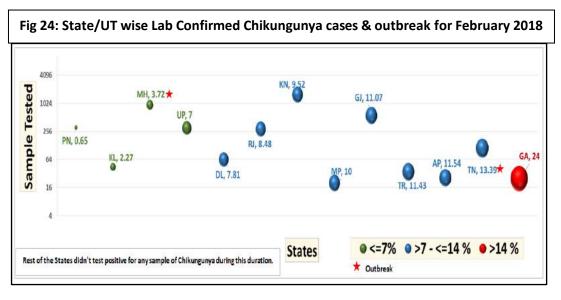


**Fig 23: State/UT wise Presumptive Chikungunya cases & outbreaks for February 2018**



**Fig 24: State/UT wise Lab Confirmed Chikungunya cases & outbreak for February 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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