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Disease Alert
प्रकोप चेतावनी

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

February 2016

Inside

Zika Virus Disease - "From Unknown to Menace"

Zika Virus Disease (ZVD), a mosquito born disease has been declared as "Public Health Emergency of International Concern (PHEIC)" on 1st February 2016 by the World Health Organization.

As of 26 May 2016, 60 countries and territories report continuing mosquito-borne transmission of which, 47 countries are experiencing a first outbreak of Zika virus since 2015, with no previous evidence of circulation, and with ongoing dissemination by mosquitos.

In India, till 01 July 2016 no case of ZVD has been detected. However, following measures have been taken by the Ministry of Health & Family Welfare, in consultation with other Ministries/Departments for the country preparedness:

- Technical guidelines including communicable disease alerts (CD Alerts) on Zika virus disease have been prepared, uploaded at NCDC website - www.ncdc.gov.in.
- Sensitization & training of all the IDSP State/District surveillance officers and RRTs has been conducted.

- Vector Surveillance has been strengthened by NVBDCP and sentinel surveillance sites for recognition of any unusual increase or clustering of microcephaly and Guillain Barre Syndrome cases have been identified by the Maternal and Child Health Division (under NHM).

To diagnose ZVD, NCDC Delhi and NIV Pune laboratories are capable to undertake tests for the virus. The development of algorithm and test Performa has already been done. Along with this, following labs have been strengthened by ICMR:

1. King Institute of Preventive Medicine, Chennai, Tamil Nadu
2. NIV Field Unit, Allapuzzha, Kerala
3. Manipal Centre for Virus Research, KMC, Manipal, Karnataka
4. BJ Medical College, Ahmedabad, Gujarat
5. Regional Medical Research Centre, Bhubaneshwar, Odisha

6. National Institute for Cholera & Enteric Diseases, Kolkata, West Bengal
7. King George Medical University, Lucknow, Uttar Pradesh
8. Regional Medical Research Centre, Dibrugarh, Assam
9. Regional Medical Research Centre, Jabalpur, Rajasthan
10. Jawaharlal Institute of Post Graduate Education & Research, Puducherry

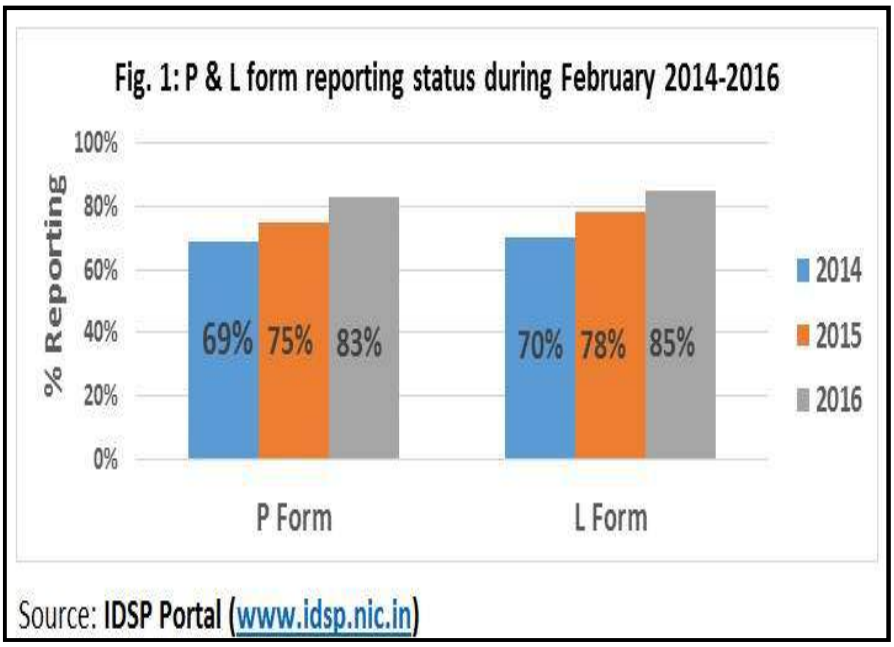
Travel Advisory was issued by Ministry of Health & Family Welfare (MoHFW) with following points:

- The non-essential travel to the affected countries to be deferred/ cancelled.
- Pregnant women or women who are trying to become pregnant should defer/ cancel their travel to the affected areas.
- All travellers to the affected countries/ areas should strictly follow individual protective measures, especially during day time, to prevent mosquito bites.
- Persons with co-morbid conditions (diabetes, hypertension, chronic respiratory illness, Immune disorders etc.) should first take consultancy from the nearest health facility, before travelling to a ZVD affected country.
- Travelers having febrile illness within two weeks of return from an affected country should report to the nearest health facility.
- All the International Airports / Ports have displayed billboards/ signage providing information to travellers regarding ZVD with the advice to report to Immigration authorities, in case of their returning from affected countries.

Standard instructions have been given to all international airlines to follow the recommended aircraft disinsection guidelines by Directorate General of Civil Aviation, Ministry of Civil Aviation.
A call centre has been established for Zika Virus disease working 24X7 at EMR, Dte. GHS (011- 23063205, 011-23061469).

Enteric Fever, ADD, Cholera and Viral Hepatitis A & E, 2014-2016*

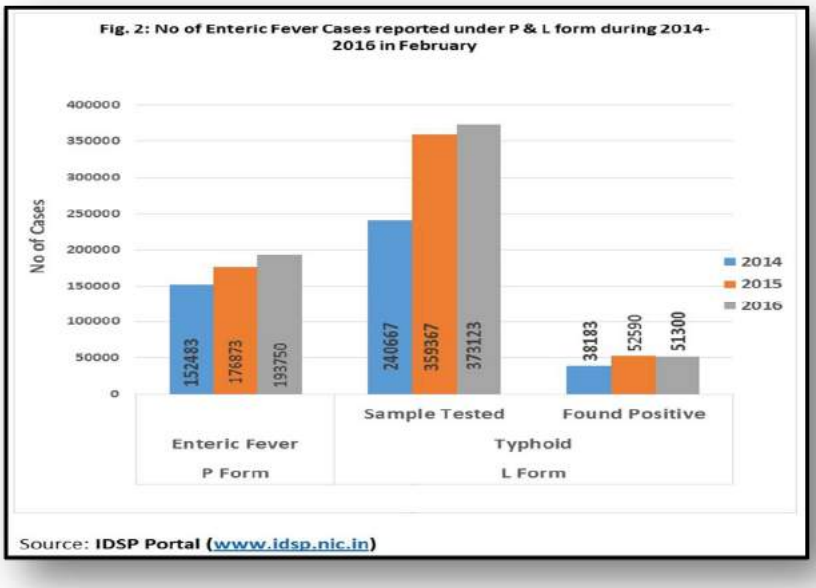
* Data extracted from IDSP Portal (www.idsp.nic.in) as on June 16; 2016



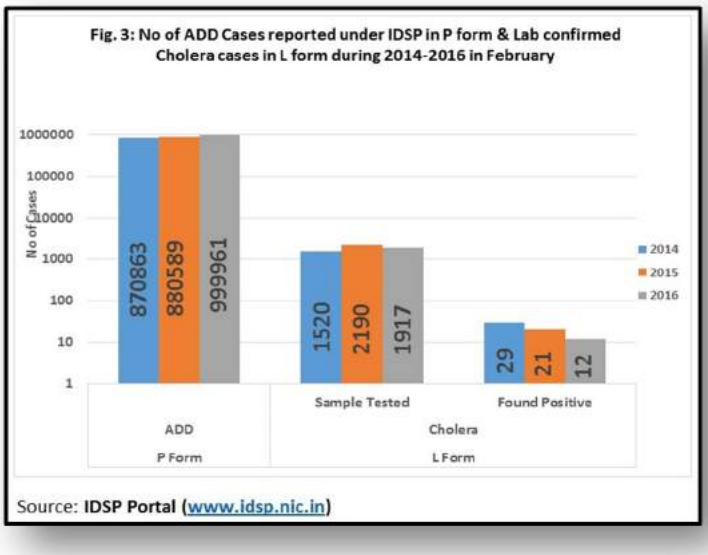
As shown in fig 1, in February 2014, 2015 and 2016, the 'P' form reporting percentage (i.e. % RU reporting out of total in P form) was 69 %, 75% and 83% respectively, for all disease conditions reported under IDSP. Similarly, L form reporting percentage was 70%, 78% and 85% respectively across India for all disease conditions reported under IDSP, during the same month. The completeness of reporting has significantly increased over the years in both P and L form, thereby improving the quality of surveillance data.

As shown in fig 2, number of presumptive enteric fever cases, as reported by States/UTs in 'P' form was 152483 in February 2014; 176873 in February 2015 and 193750 in February 2016. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in February 2014; 240667 samples were tested for Enteric fever, out of which 38183 were found positive (15.9% positivity). In February 2015; out of 359367 samples, 52590 were found to be positive (14.6% positivity) and in February 2016, out of 373123 samples, 51300 were found to be positive (13.7% positivity).



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



As shown in fig 3, number of Acute Diarrhoeal Disease cases, as reported by States/UTs in 'P' form was 870863 in February 2014; 880589 in February 2015 and 999961 in February 2016. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in February 2014, 1520 samples were tested for Cholera out of which 29 tested positive (1.9% positivity); in February 2015, out of 2190 samples, 21 tested positive for Cholera (0.9% positivity)and in February 2016, out of 1917 samples, 12 tested positive (0.6% positivity).

As shown in fig 4, the number of presumptive viral hepatitis cases was 22363 in February 2014, 19993 in February 2015 and 30391 in February 2016. 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 2014; 14051 samples were tested out of which 1051 were found positive (7.4% positivity). In February 2015; out of 15546 samples, 835 were found to be positive (5.3% positivity) and in February 2016, out of 13883 samples, 855 were found to be positive (6.1% positivity).
As reported in L form for viral hepatitis E, in February 2014; 4940 samples were tested out of which 289 were found positive (5.8% positivity). In February 2015; out of 4252 samples, 421 were found to be positive (9.9% positivity) and in February 2016, out of 8263 samples, 1076 were found to be positive (13.0% positivity).

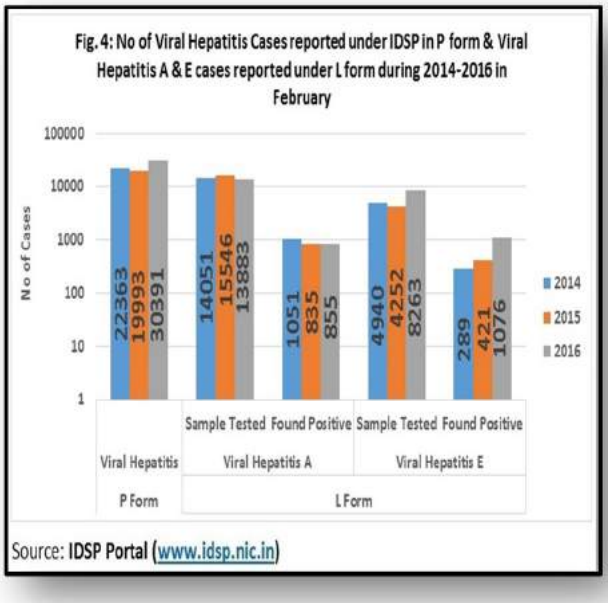


Fig 5: State/UT wise P form completeness % for February 2016

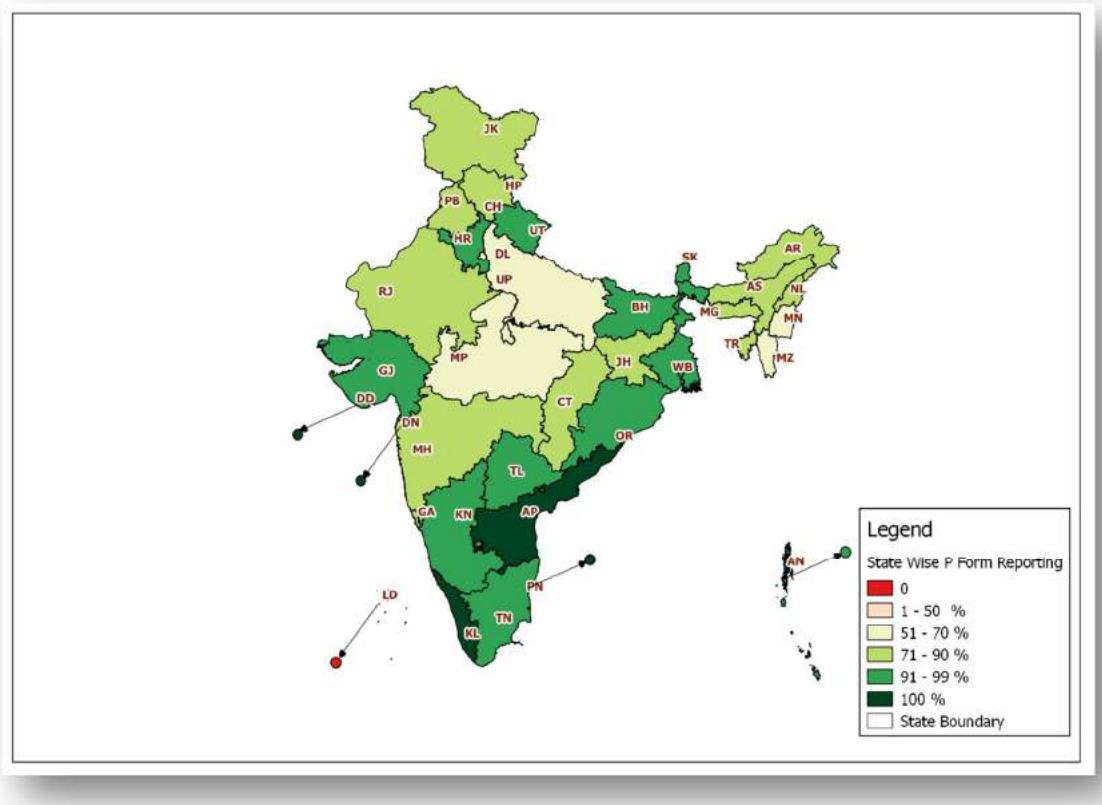


Fig 6: State/UT wise L form completeness % for February 2016

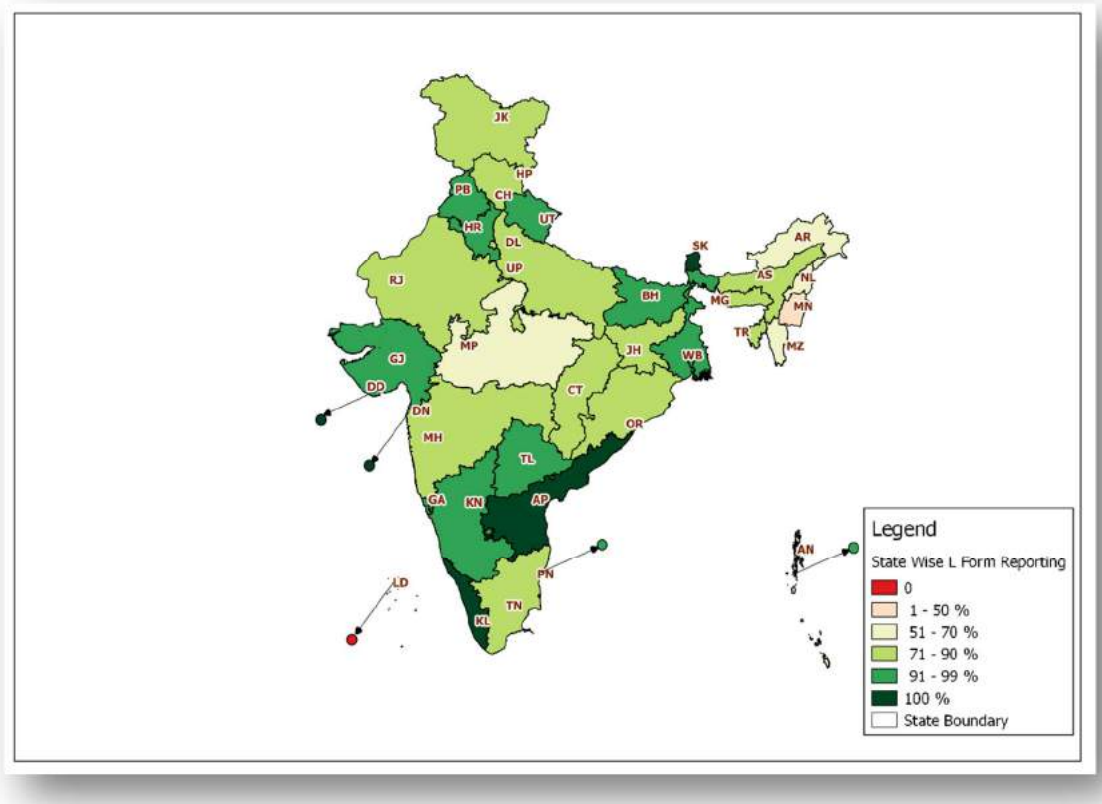


Fig 7: State/UT wise Presumptive Enteric fever cases and outbreaks for February 2016

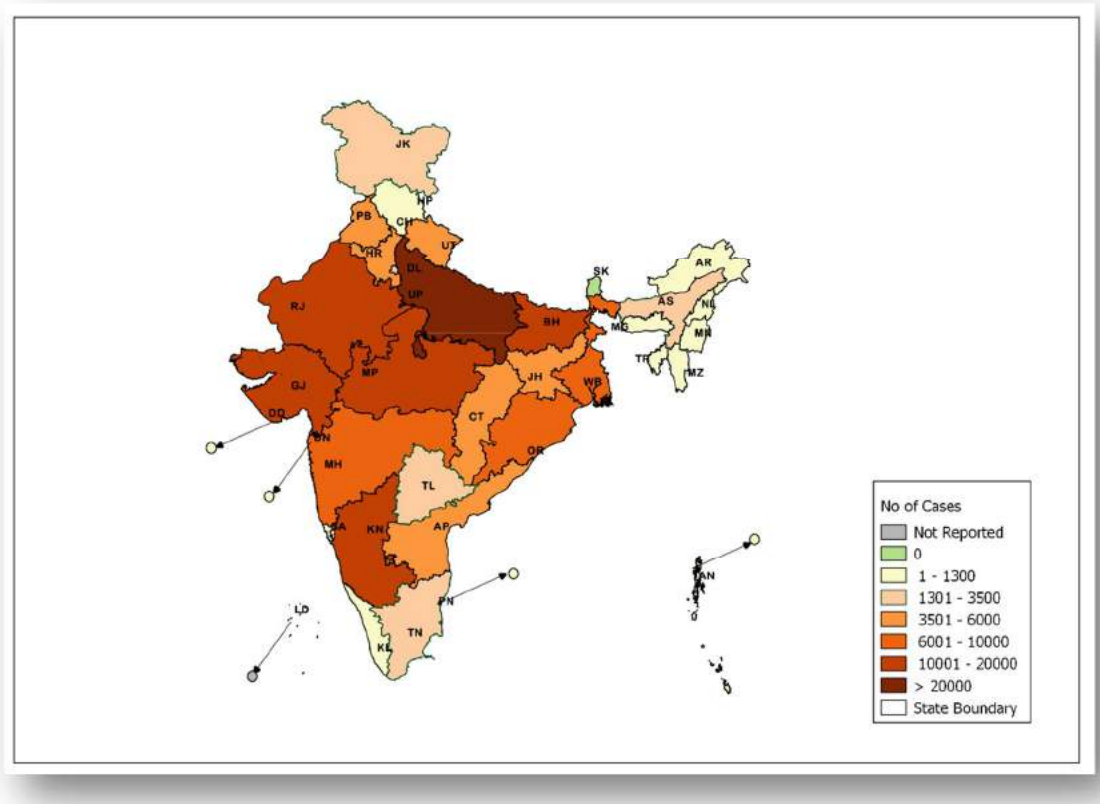


Fig 8: State/UT wise Lab Confirmed Enteric Fever cases and outbreaks for February 2016

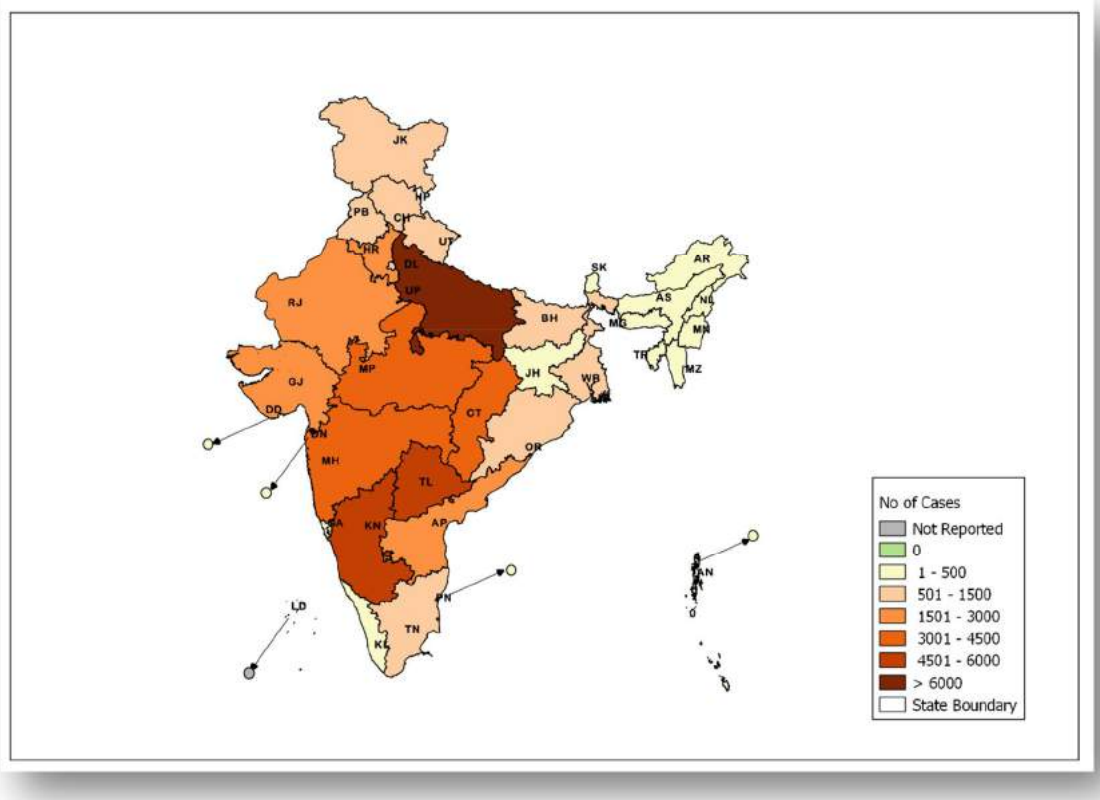


Fig 9: State/UT wise Presumptive ADD cases and outbreaks for February 2016

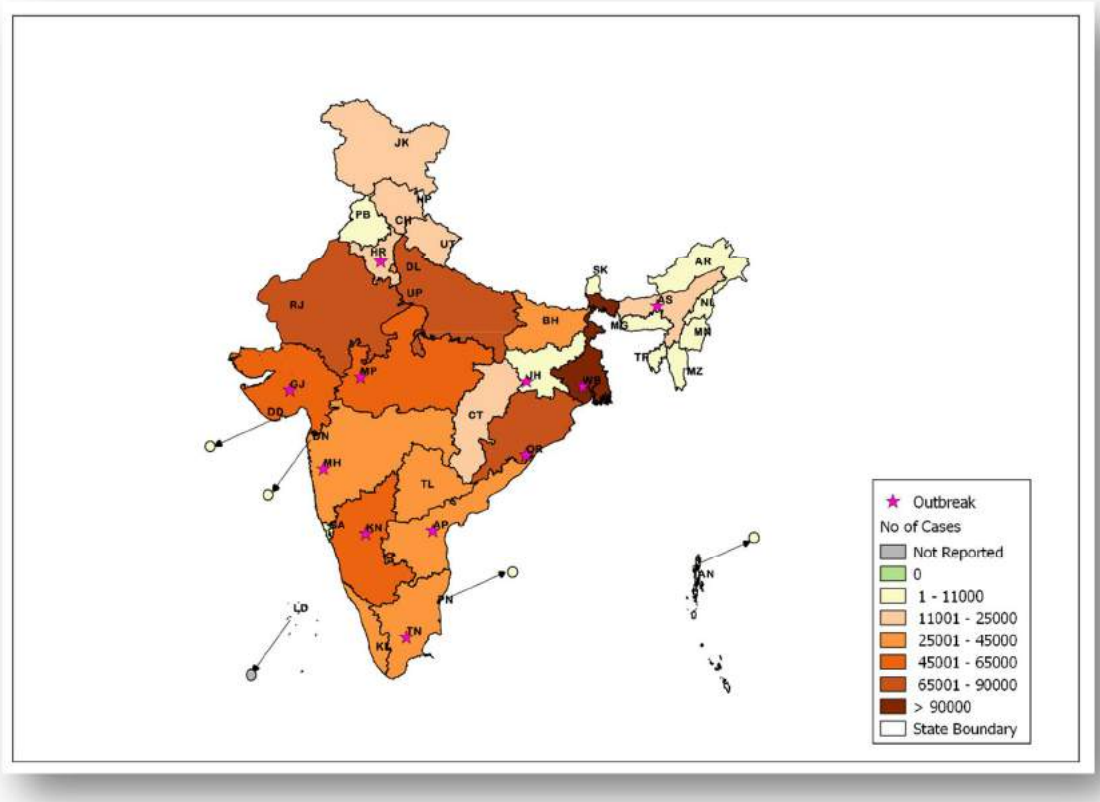


Fig 10: State/UT wise Lab Confirmed Cholera cases and outbreaks for February2016

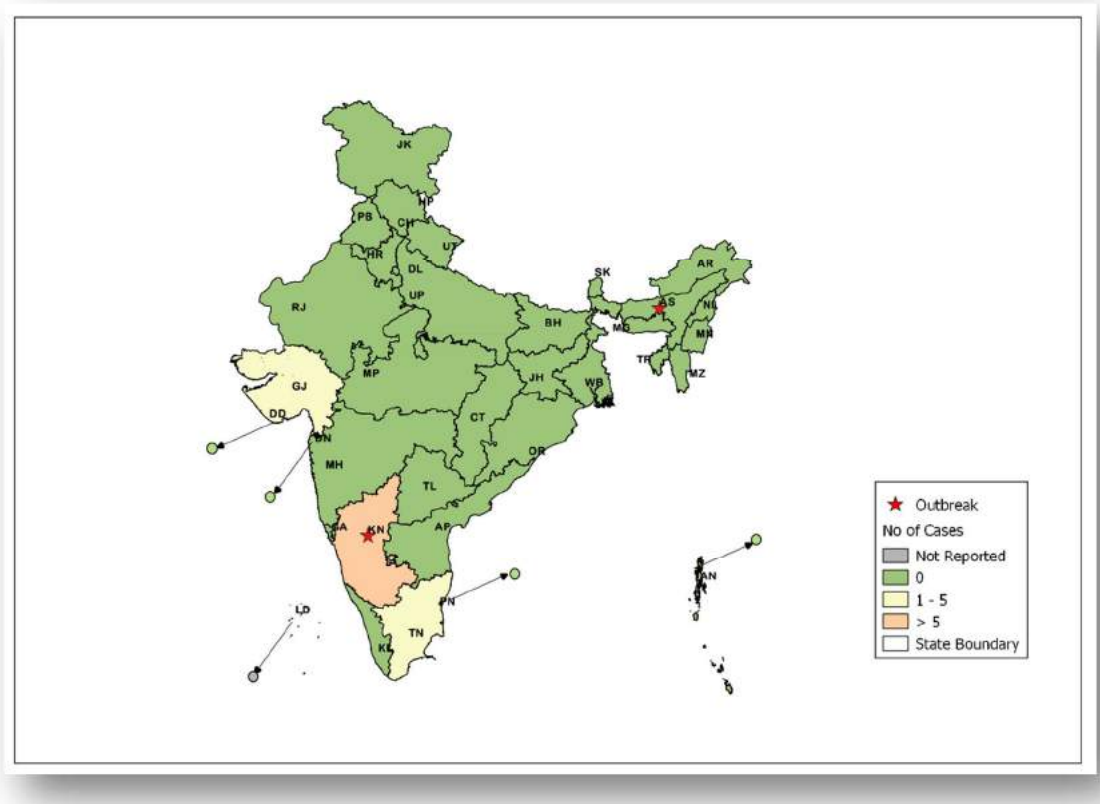


Fig 11: State/UT wise Presumptive Viral Hepatitis cases and outbreaks for February 2016

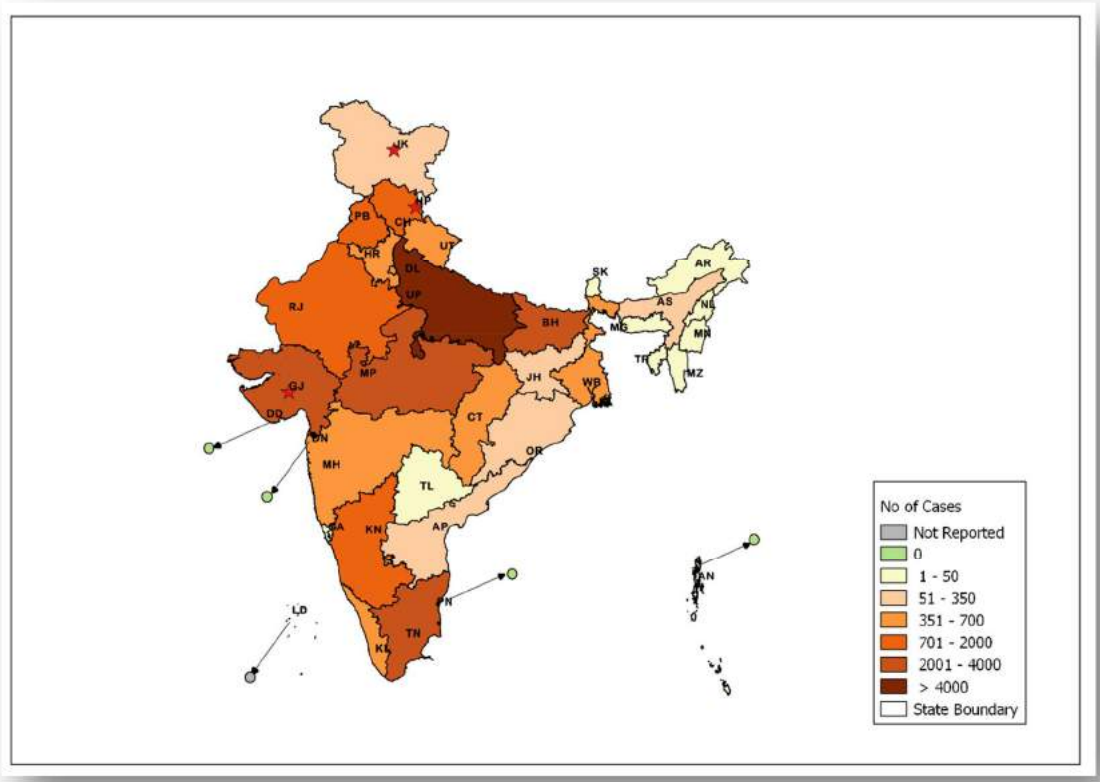


Fig 12: State/UT wise Lab confirmed Viral Hepatitis A cases for February 2016

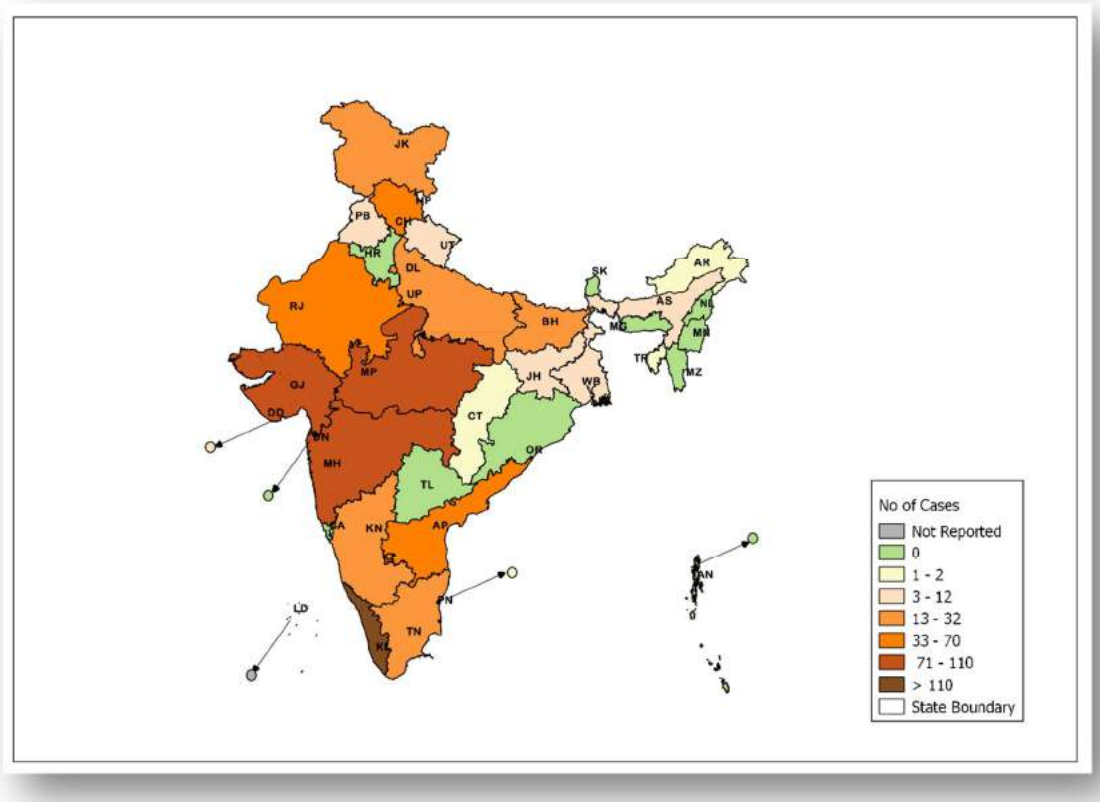
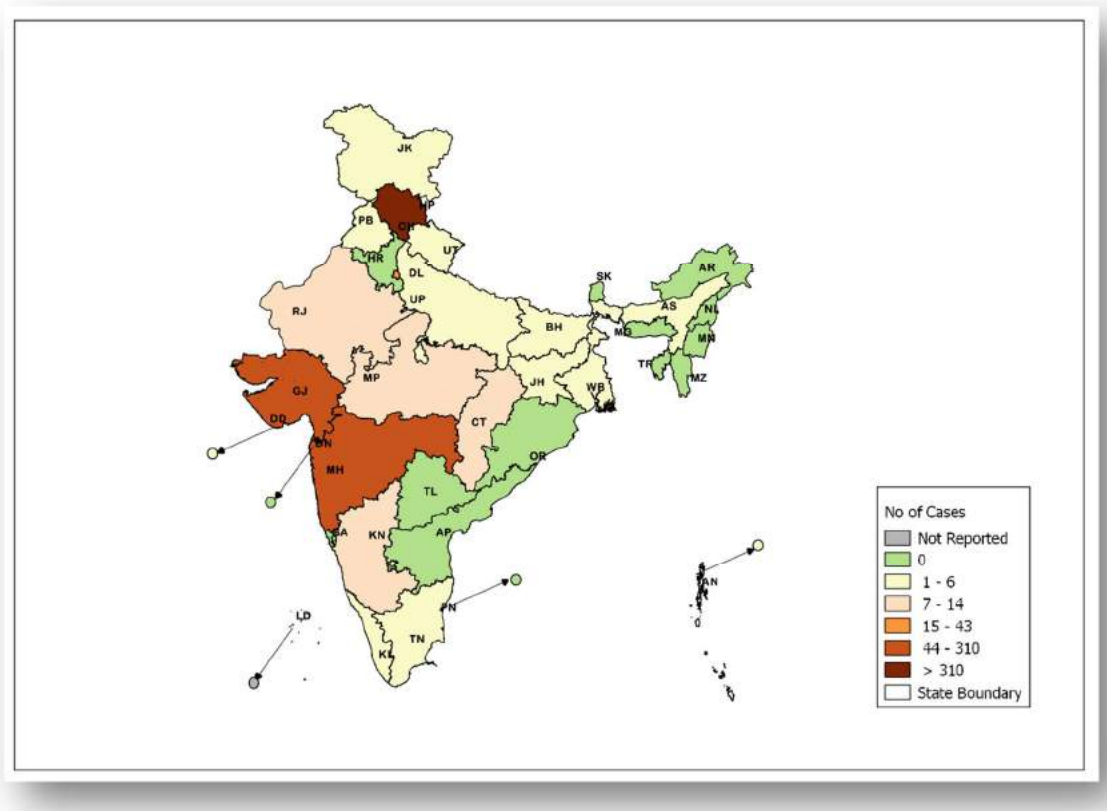


Fig 13: State/UT wise Lab confirmed Viral Hepatitis E cases for February 2016



Measles Outbreak Investigation Reported From Village Gunsa, Dadra & Nagar Haveli as Submitted By Dr. Siddharth Talawat, Epidemiologist

Background:-

- The present outbreak occurred in Village/Sub Centre Gunsa, a remote village located under Primary Health Centre (PHC) Dudhani in Union Territory of Dadra and Nagar Haveli. The total population of Gunsa village is 1424.
- The index case was reported by Medical Officer In charge (MO IC) of PHC Dudhani on 02.02.16. On the same day, Surveillance team of UT IDSP, MO IC of PHC Dudhani started investigation.

Methodology:

- House to house survey was started in the affected areas (Shivpada, Patelpada, Kumbhipada, Savarpada, and Chichpada) from the date of index case to till the double incubation period of the last Measles case (Onset of the Rash).
- Outbreak case definition of measles: a case of any age with or without fever, maculopapular rash, cough or coryza or conjunctivitis, which occurred in the last 03 months (November'15, December'15 and January 2016) was used.
- An outbreak of probable measles was declared after comparisons of similar cases from previous years in the same reporting unit (which were nil) and previous weeks in this year (which was also nil).
- Under supervision of SPO IDSP, nearby school Anganwadi & health officials were informed of the situation & alerted to report for the similar cases immediately if found.
- To confirm the outbreak 5 Blood Serum samples were collected from patients and sent for laboratory confirmation to District Public Health Lab Silvassa and Microbiology Division, Civil Hospital Ahmedabad.

- All measures of outbreak response were taken as per the standard guideline, for control of the outbreak.

Result

Epidemiology:

- A total of 24 cases of measles were found during active survey.
- Majority of the cases were males (13) and rest were females.
- Most common affected age group was 5 – 9 yrs. (20 cases)

Table 1: Age and sex distribution of Measles cases.

Demographic Distribution	Male	Female	Total
< 1	0	0	0
1 to 4	1	0	1
5 to 9	11	9	20
10 to 14	1	2	3
Above 14 years	0	0	0
Total	13	11	24

Fig 14: Epi Curve of the Outbreak

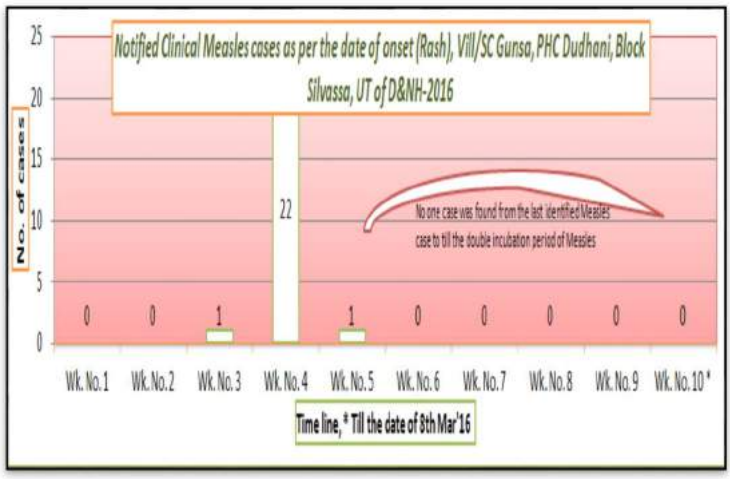


Fig 15: Spot Map of the Area Showing Affected Village

- Vaccination status: Vaccination Status of the cases was taken from the Mother and Child Protection (MCP) Card along with RCH Register Version 1.1
- Total No. of cases: 24
- Number of cases vaccinated for 1st dose of Measles: 24
- Number of cases vaccinated for 2nd dose of Measles: 01 (2nd dose of Measles was started in Sep.2011, at the UT of D&NH areas).

- The outbreak started in week 3 of 2016, reached its peak in week 4 and last case was found in week 5. Outbreak was declared over in week 10.
- Lab Results: All five serum samples were positive for Measles ELISA IgM.
- No case was found from the last Measles case to double incubation period of Measles.
- The outbreak was declared over on 8th March 2016.

Implementation of Control and Preventive Measures:

- Isolation of affected cases.
- Symptomatic treatment and provision of Vitamin A.
- IEC regarding personal hygiene.

Conclusion:-

The outbreak was due to measles infection. Although the cause of outbreak could not be ascertained but following factors might have led to its emergence:

- Single dose Measles vaccination might not have been able to produce appropriate seroconversion.
- Improper cold chain management during vaccination rounds. Although when the investigation was performed, cold chain management was good. But since majority of the cases were 5- 9 years of age, cold chain practices adopted at that time cannot be verified.

Action from the field

1. State review meeting of Rajasthan & ICT Training of Data Managers & Data Entry Operators by Dr. Ruchi Jain, Asstt. Director IDSP, Ms. Pallavi Luthra - Consultant IT & Ms. Sujata Malhotra - Data Manager IDSP, at Jaipur from 02.02.2016 to 04.02.2016.

2. State review meeting of Andhra Pradesh held at Hyderabad from 28.02.2016 to 01.03.2016 under the Chairmanship of Dr. Pradeep Khasnobis Sr. CMO & Officiating NPO IDSP & Dr. Pranay Verma, Asstt. Director IDSP.

3. State review meeting of Nagaland was taken by Dr. Jyoti, Asstt. Director IDSP from 29.02.2016 to 03.03.2016.

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.
- **State Code:**
  Andaman & Nicobar Islands AN; Andhra Pradesh AP; Arunachal Pradesh AR; Assam AS; Bihar BH; Chandigarh CH; Chhattisgarh CT; Dadra & Nagar Haveli DN; Daman & Diu DD; Delhi DL; Goa GA; Gujarat GJ; Haryana HR; Himachal Pradesh HP; Jammu & Kashmir JK; Jharkhand JH; Karnataka KN; Kerala KL; Lakshadweep LD; Madhya Pradesh MP; Maharashtra MH; Manipur MN; Meghalaya MG; Mizoram MZ; Nagaland NL; Odisha OR; Puducherry PN; Punjab PB; Rajasthan RJ; Sikkim SK; Tamil Nadu TN; Telangana TL; Tripura TR; Uttar Pradesh UP; Uttarakhand UT; West Bengal WB.

- **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.

  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.

  The data shown in the IDSP Surveillance 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

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