



Disease Alert

प्रकोप चेतावनी

A Monthly Surveillance Report
From
Integrated Disease Surveillance Programme
National Health Mission

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SCRUB TYPHUS OUTBREAK**BLOCK DHEKAJULI, SONITPUR, ASSAM****BACKGROUND:**

Suspected cases of AES were reported by ANM in 3 villages in Dhekiajuli BPHC. It was reported that some elderly patients of villages Nijarapar (Ward 10), Nepalibasti, Missamari were suffering from AES. The area has a population of 35670.

Since JE which is prevalent in certain parts of Assam is usually seen in younger age groups, the information was promptly communicated by concerned PHC to DSU, Sonitpur. Realizing the situation, DSU immediately deployed an RRT to investigate the incidence. The RRT comprised of District Epidemiologist, MO of concerned PHC, ANM and other technical staff..

DETAILS OF INVESTIGATION:

The RRT & Block health teams went to affected villages and conducted surveillance for cases of fever with any neurological signs. It was found that about few patients had symptoms of AES, but after detailed interviews, 2 patients had typical symptoms needing hospitalization.

Samples of both the patients, a woman in her 40s and a male around 60 were send to Tezpur Medical College & Hospital (TMCH), Sonitpur. The patients were also shifted to TMCH for further evaluation & treatment.

RRT also started detailed investigation to find similar cases. A spot map was prepared (below). It was realized that the cases were about 8 kms apart. After thorough investigation, no new cases suggestive of AES were found.

Since both the affected individuals had history of visiting nearby vegetation areas & forests. Therefore, members of RRT also explored the possibility of other conditions including Scrub Typhus in view of this and other corrylated findings.

REGARDING SCRUB TYPHUS:

Scrub Typhus is caused by a bacteria called *Orientia tsutsugamushi*. It is spread through bites of infected chiggers (larval mites). Symptoms appear after after IP of 6-21 days and is characterized by classical triad of High Grade Fever, Eschar, and Neurological Signs. The disease may be fetal if left untreated, but is easily curable using Tetracycline or Chloramphenicol. Scrub Typhus is an important emerging disease in India



Fig. 1 Investigation by RRT team in affected house

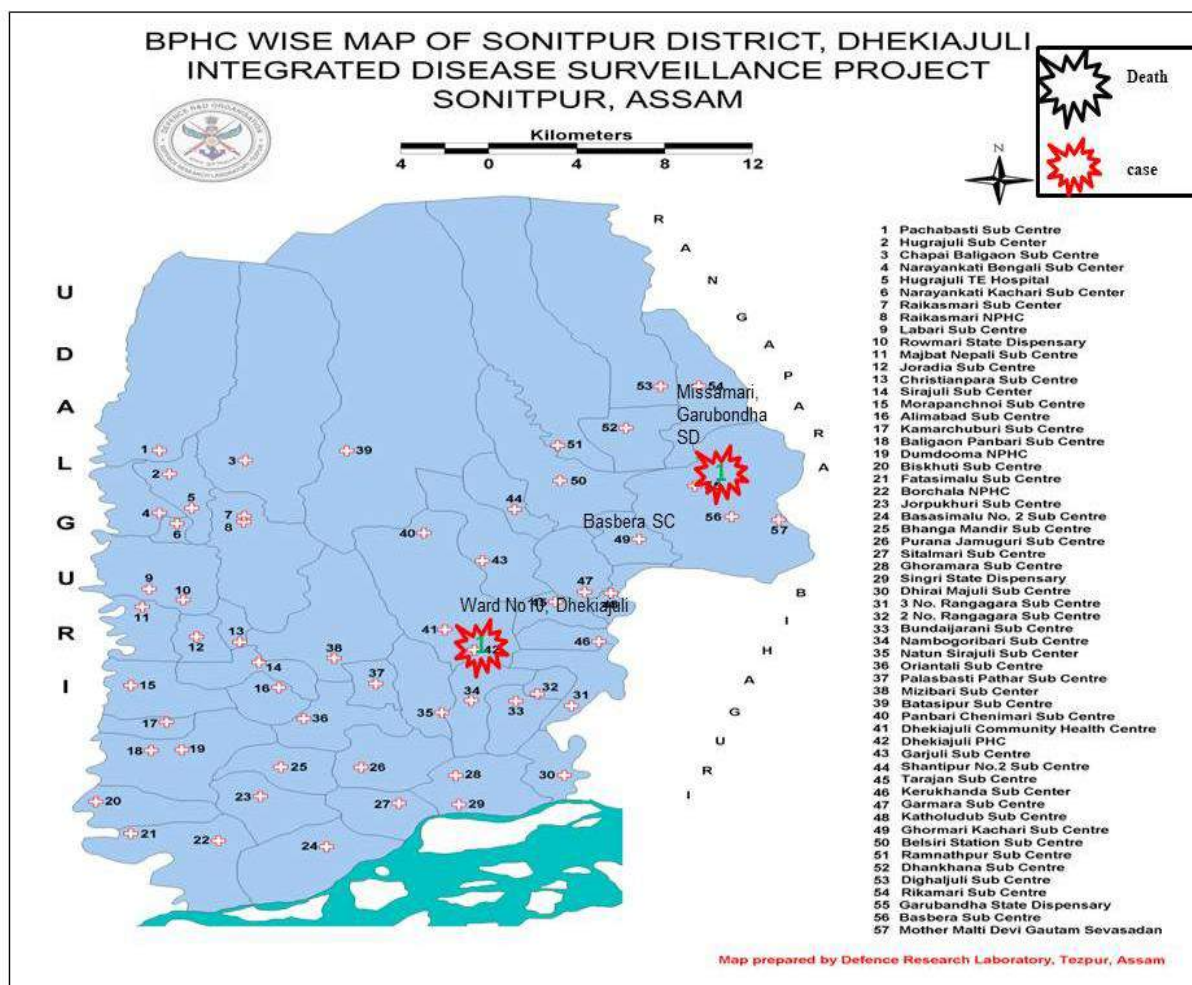


Fig. 2 BPWC Wise Map

LABORATORY DIAGNOSIS:

Both the samples tested positive for Scrub Typhus by IgM Mac ELISA. The samples were negative for JE.

INTERPRETATION:

Based on epidemiological investigations & lab results, this was confirmed as an outbreak of Scrub Typhus.



Fig.3 Treatment of an affected patient at TMCH, Sonitpur

CONTROL MEASURES:

On confirmation of diagnosis of Scrub Typhus SDM & HO of respective blocks were intimated for immediate institution of necessary containment & control. On re-survey, no epidemiologically linked cases suggestive of Scrub Typhus were found.

RECOMMENDATIONS:

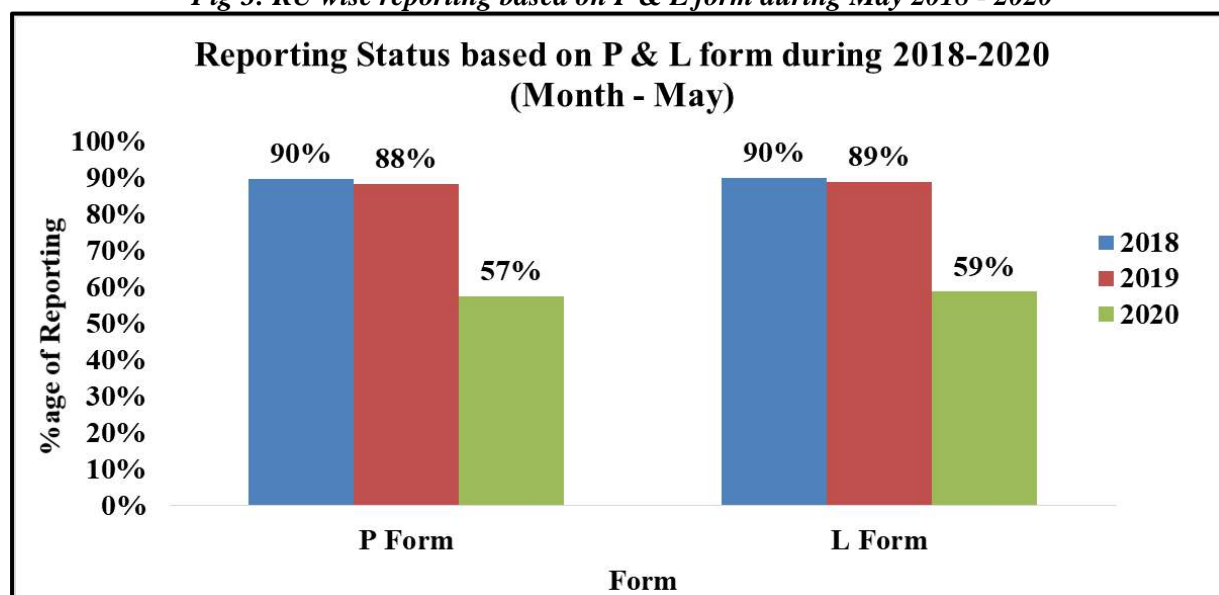
Following control measures & recommendations were instituted –

1. Regular surveys to identify any patients with signs suggestive of Scrub Typhus – Fever with Chills, Bodyache, Muscle Pains, Eschar at site of Chigger bite, Mental changes ranging from confusion to coma, enlarged lymph node, rash
2. Cleaning of scrubs was carried out around buildings and other areas. Public was also told to remove overgrown weeds from near dwelling area
3. IEC regarding maintaining hygiene and avoiding visitation to areas with vegetation/forest imparted to public
4. Rodent control was impressed upon general public as rats play an important role in epidemiology by increasing the spread of disease.
5. Public was told to wear long clothes to reduce chances of exposure to chiggers and preventing their bites

Surveillance data of Enteric Fever, Acute Diarrhoeal Disease, Viral Hepatitis A & E, Dengue Leptospirosis, Dengue, Chikungunya, Leptospirosis and Seasonal Influenza A (H1N1) During May 2018 - 2020*

Data extracted from IDSP Portal (www.idsp.nic.in) as on October 13th, 2020.

Fig 3: RU wise reporting based on P & L form during May 2018 - 2020



As shown in Fig 3, in May 2018, 2019 and 2020, the 'P' form reporting percentage (i.e. % RU reporting out of total in P form) was 90%, 88% and 57% respectively across India, for all disease conditions reported under IDSP in P form. Similarly, L form reporting percentage was 90%, 89% and 59% 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 slightly decreased in both P and L form in 2020 because of ongoing CoVID-19 pandemic.

Fig 4: State/UT wise P form completeness % for May 2020

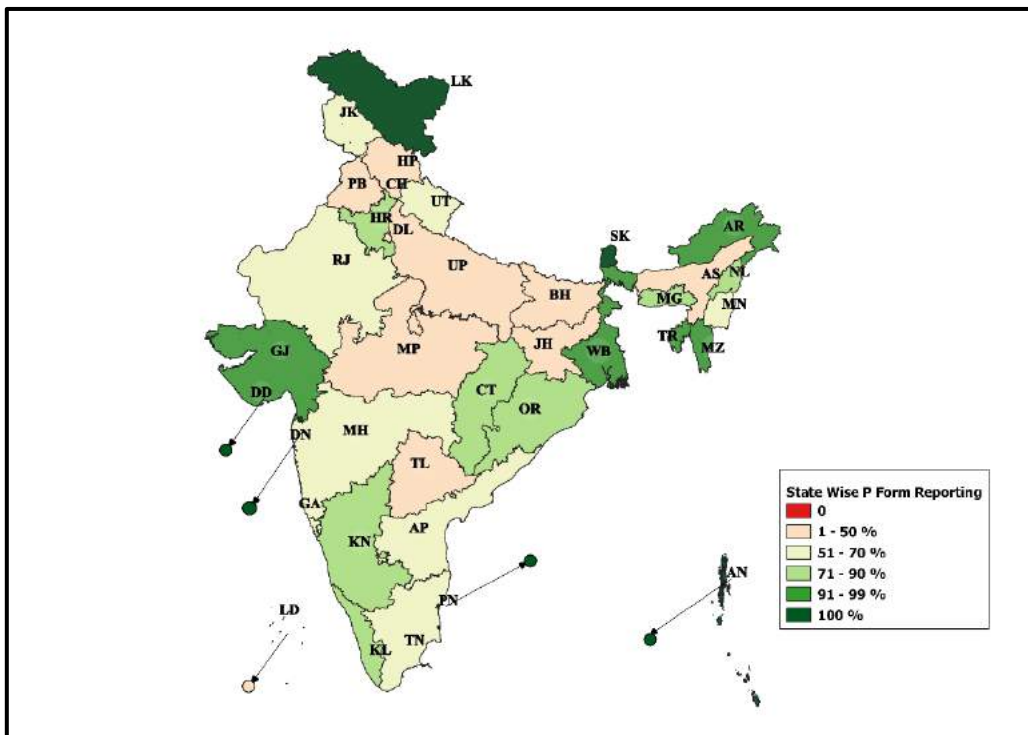


Fig 5: State/UT wise L form completeness % for May 2020

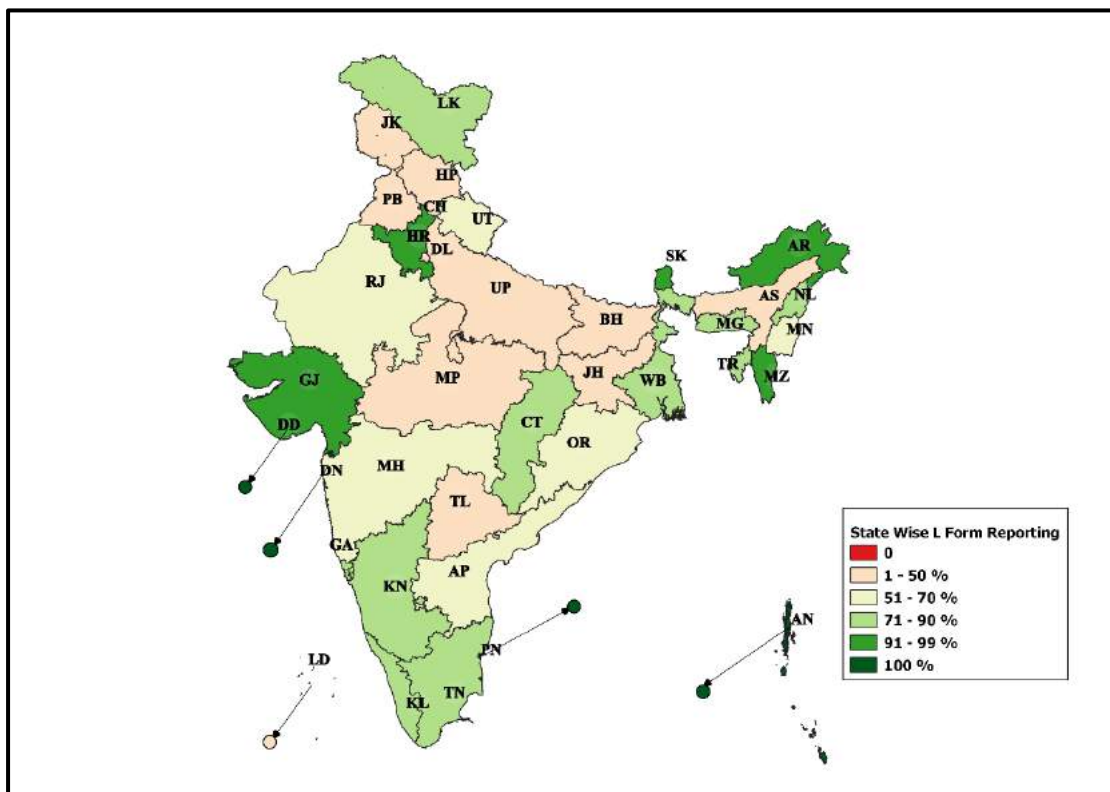
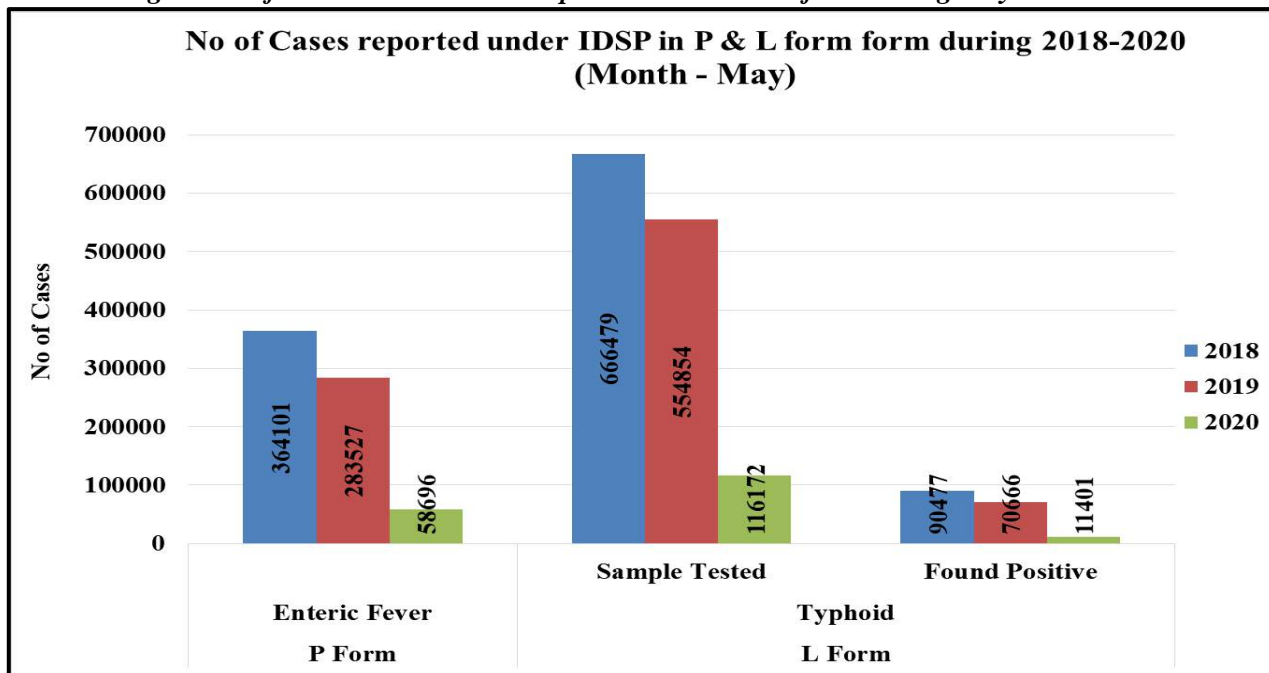


Fig 6: No. of Enteric Fever Cases reported under P & L form during May 2018 - 2020



As shown in Fig 6, number of presumptive enteric fever cases, as reported by States/UTs in 'P' form was 364101 in May 2018; 283527 in May 2019 and 58696 in May 2020. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in May 2018; 666479 samples were tested for Typhoid, out of which 90477 were found positive. In May 2019; out of 554854 samples, 70666 were found to be positive and in May 2020, out of 116172 samples, 11401 were found to be positive.

Sample positivity has been 13.58%, 12.74% and 9.81% in May month of 2019, 2018 & 2020 respectively.

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 7: State/UT wise Presumptive Enteric fever cases and outbreaks for May 2020

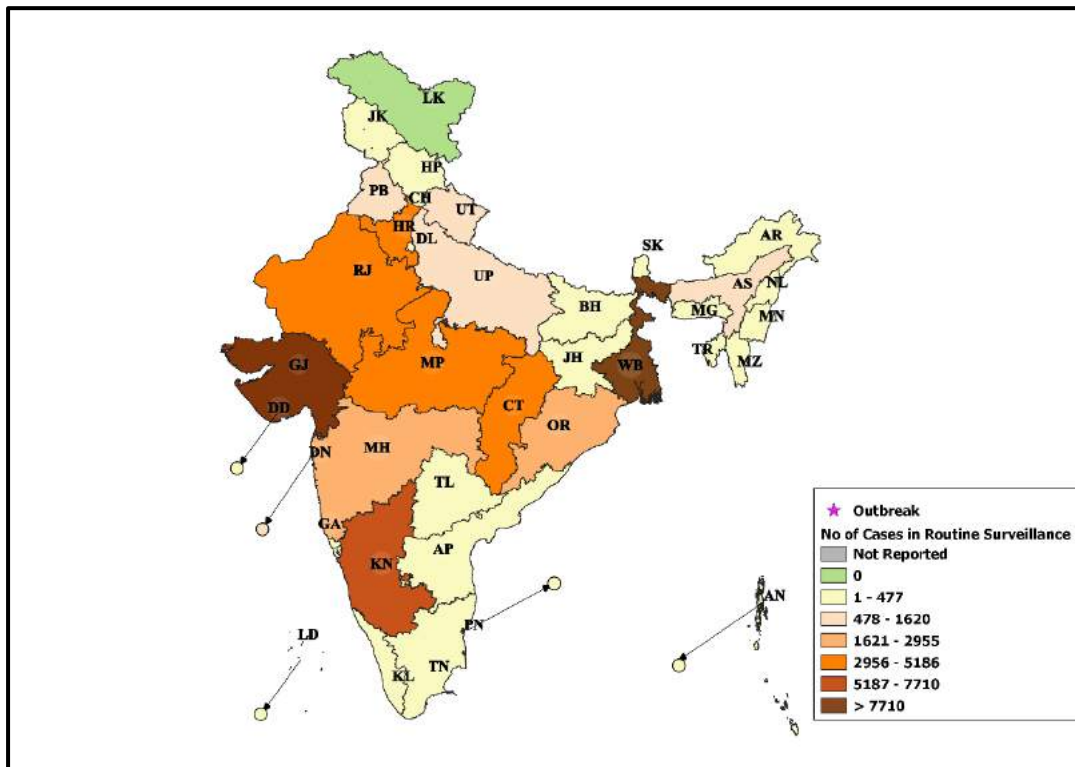


Fig 8: State/UT wise Lab Confirmed Typhoid cases and outbreaks for May 2020

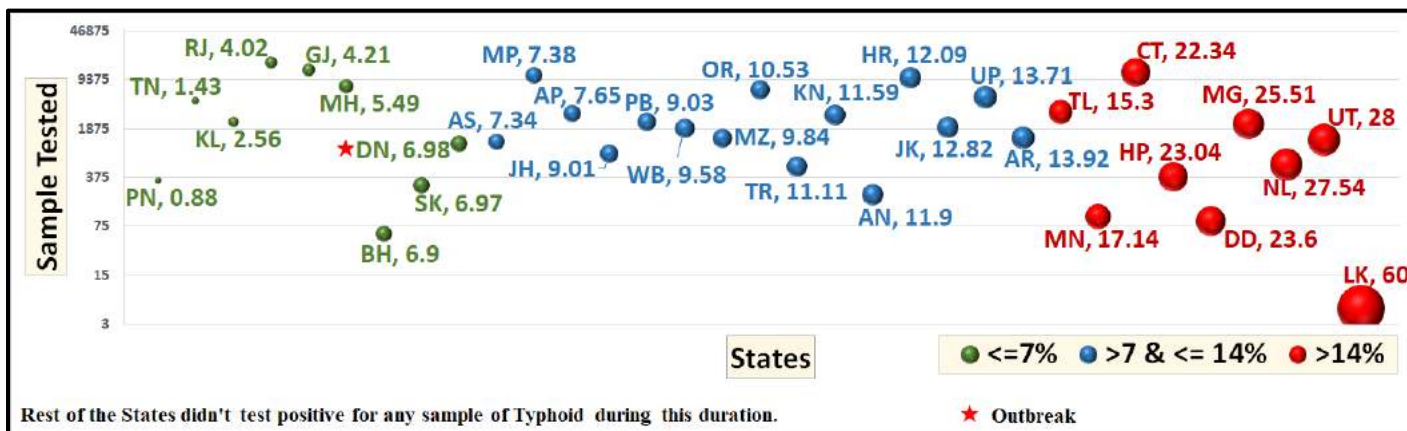
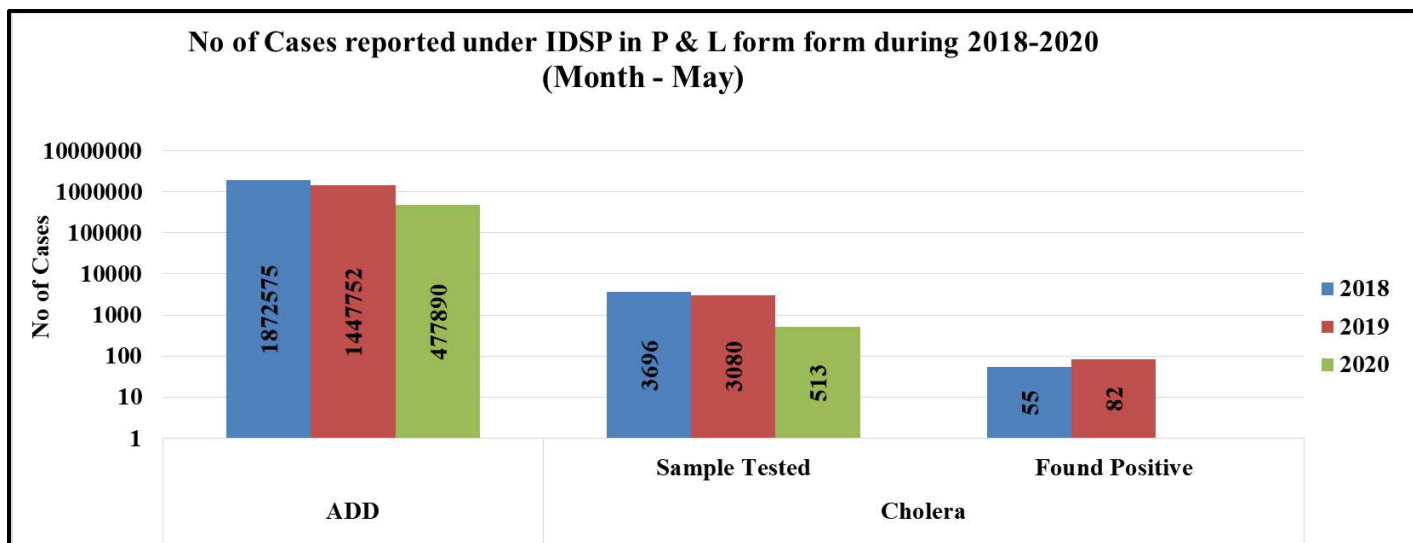


Fig. 9: No. of ADD Cases reported under IDSP in P Form during May 2018 - 2020



As shown in Fig 9, number of Acute Diarrhoeal Disease cases, as reported by States/UTs in ‘P’ form was 1872575 in May 2018; 1447752 in May 2019 and 477890 in May 2020. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in May 2018, 3696 samples were tested for Cholera out of which 55 tested positive; in May 2019, out of 3080 samples, 82 tested positive for Cholera and in May 2020, out of 513 samples, 0 tested positive.

Sample positivity of samples tested for Cholera has been 1.49%, 2.66% and 0.00% in May month of 2018, 2019 & 2020 respectively.

Fig 10: State/UT wise Presumptive ADD cases and outbreaks for February 2020

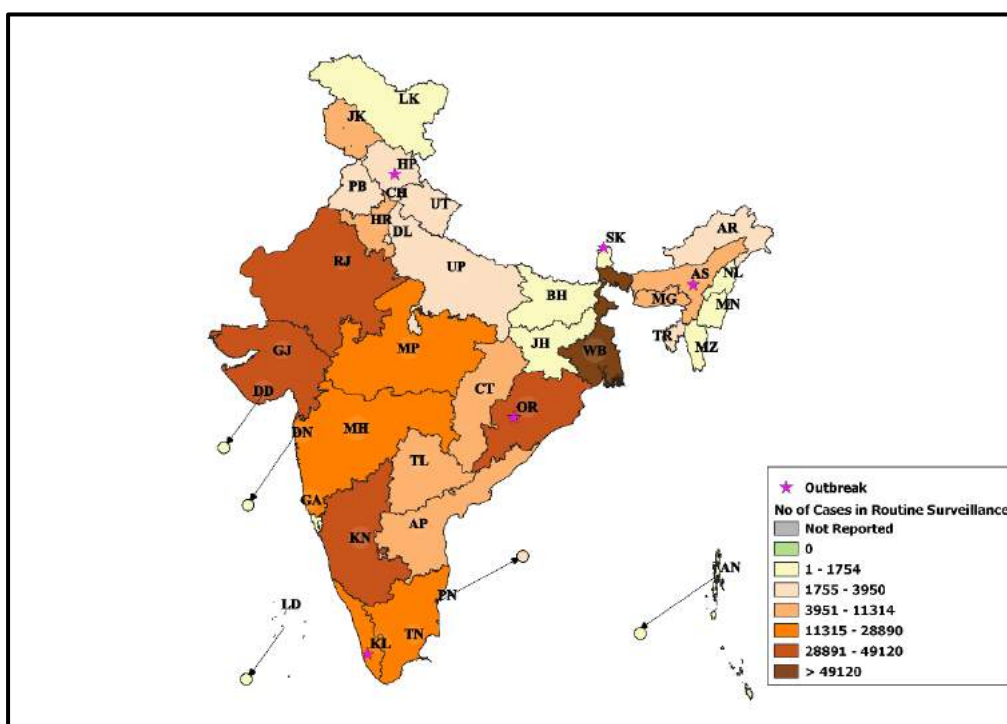
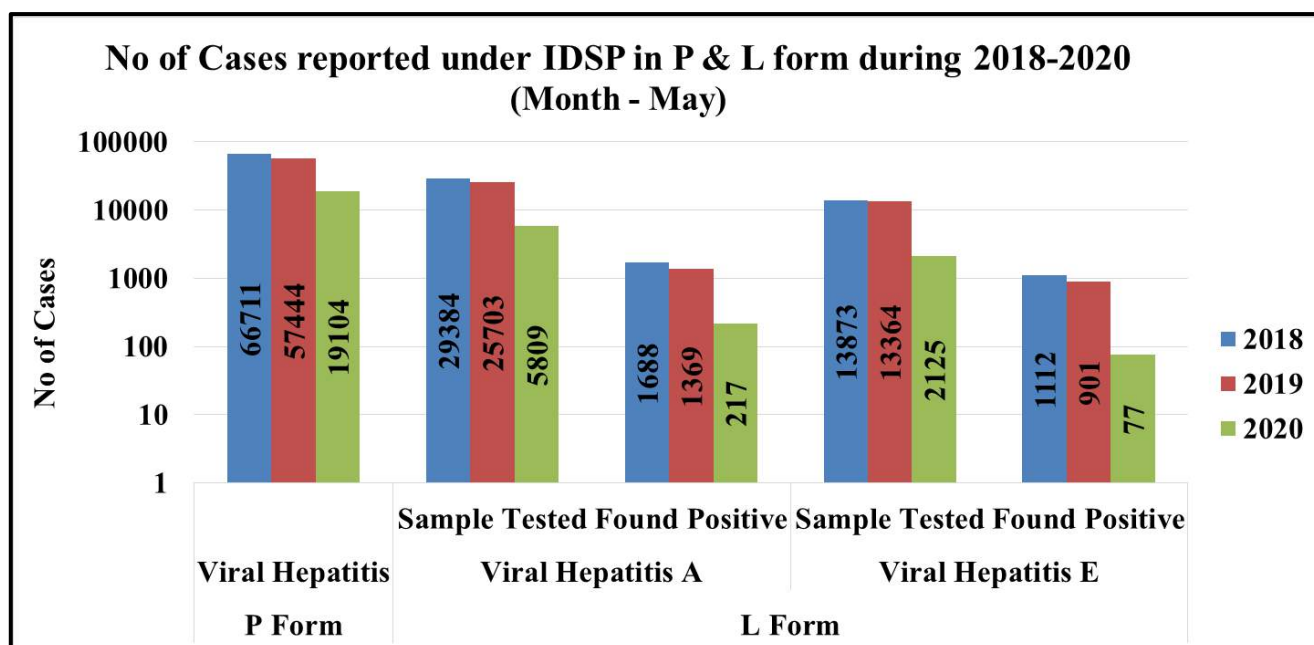


Fig 11: No of Viral Hepatitis Cases reported under IDSP in P form & Viral Hepatitis A & E cases reported under L form during May 2018 - 2020



As shown in Fig 11, the number of presumptive Viral Hepatitis cases was 66711 in May 2018, 57444 in May 2019 and 19104 in May 2020. These presumptive cases were diagnosed on the basis of case definitions provided under IDSP.

As reported in L form for Viral Hepatitis A, in May 2018; 29384 samples were tested out of which 1688 were found positive. In May 2019 out of 25703 samples, 1369 were found to be positive and in May 2020, out of 5809 samples, 217 were found to be positive.

Sample positivity of samples tested for Hepatitis A has been 5.74%, 5.33% and 3.74% in May month of 2018, 2019 & 2020 respectively.

As reported in L form for Viral Hepatitis E, in May 2018; 13873 samples were tested out of which 1112 were found positive. In May 2019; out of 13364 samples, 901 were found to be positive and in May 2020, out of 2125 samples, 77 were found to be positive.

Sample positivity of samples tested for Hepatitis E has been 8.02%, 6.74% and 3.62% in May month of 2018, 2019 & 2020 respectively.

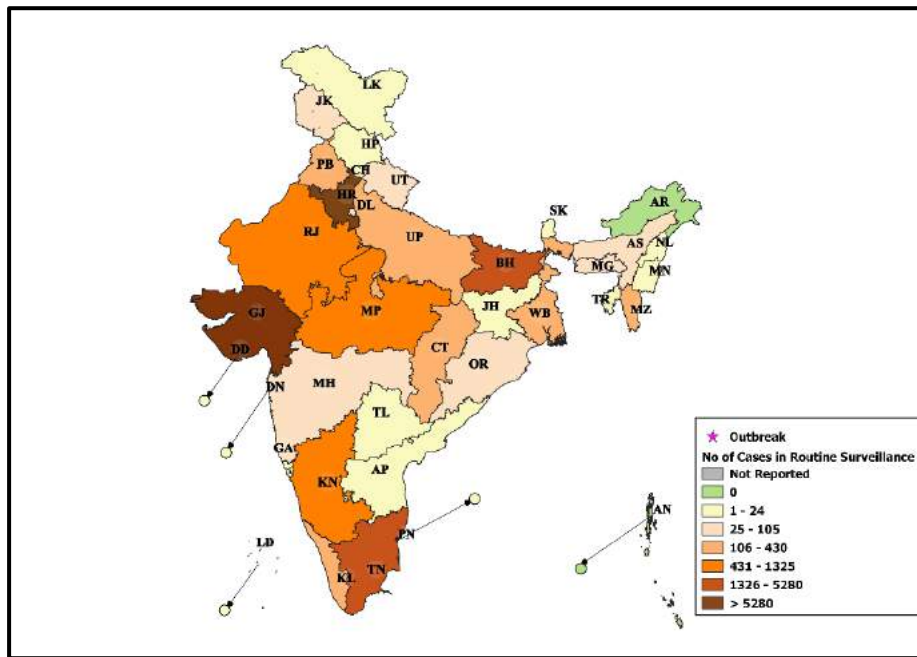


Fig 12: State/UT wise Presumptive Viral Hepatitis cases and outbreaks for May 2020

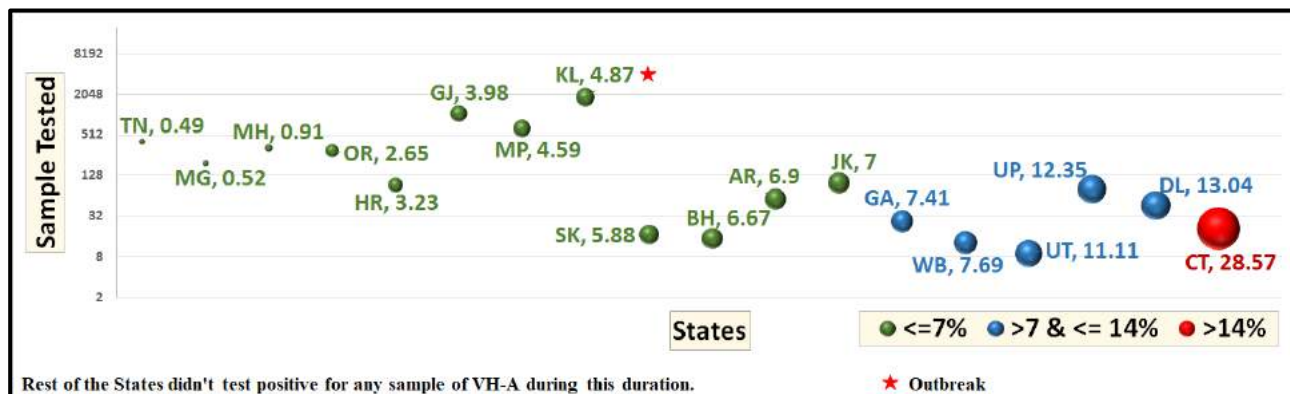


Fig 13: State/UT wise Lab Confirmed Viral Hepatitis A cases and outbreaks for May 2020

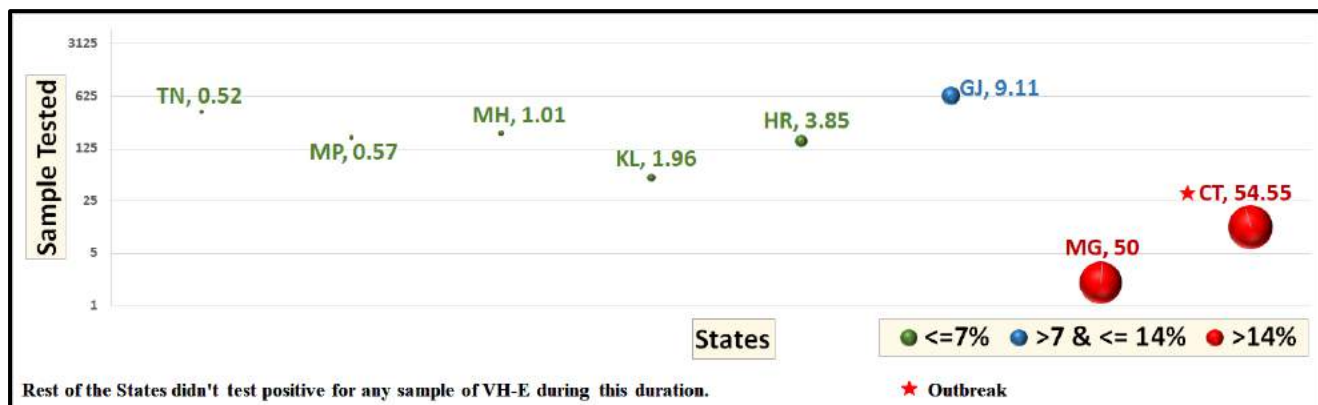
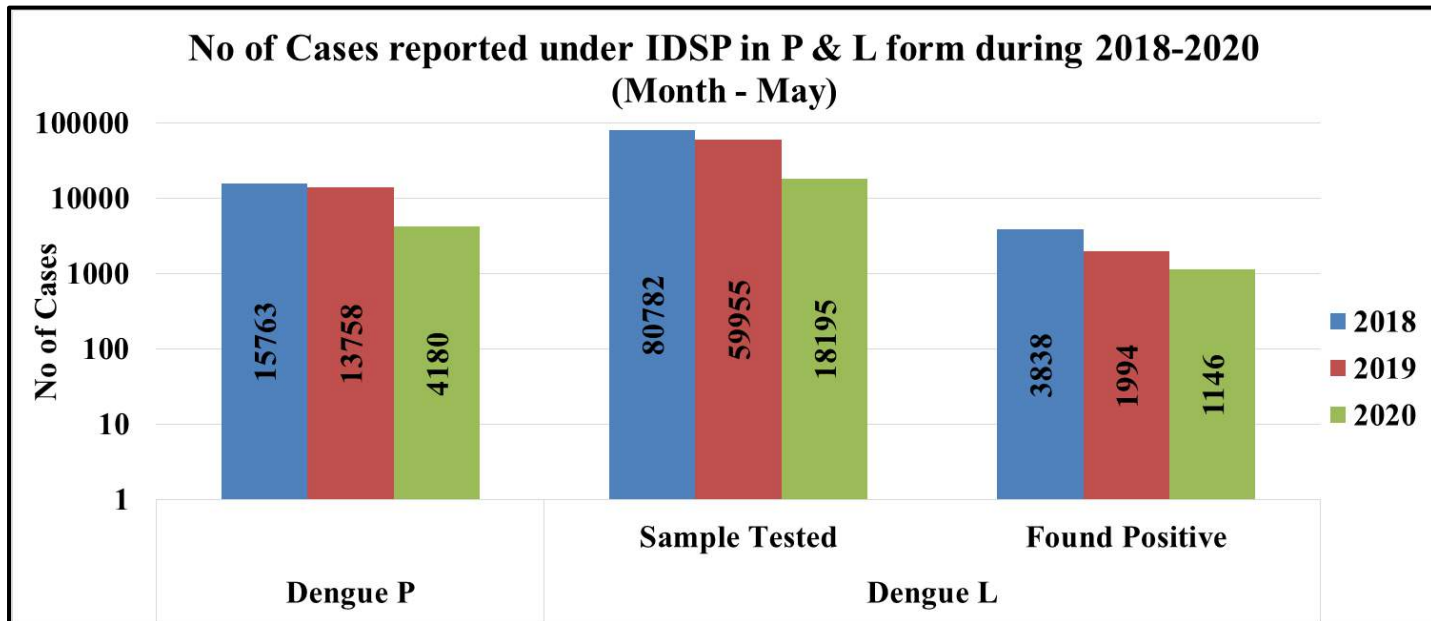


Fig 14: State/UT wise Lab Confirmed Viral Hepatitis E cases and outbreaks for May 2020

Fig 15: No. of Dengue Cases reported under IDSP in P & L form during May 2018 - 2020



As shown in Fig 15, number of presumptive Dengue cases, as reported by States/UTs in ‘P’ form was 15763 in May 2018; 13758 in May 2019 and 4180 in May 2020. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in May 2018; 80782 samples were tested for Dengue, out of which 3838 were found positive. In May 2019; out of 59955 samples, 1994 were found to be positive and in May 2020, out of 18195 samples, 1146 were found to be positive.

Sample positivity of samples tested for Dengue has been 4.75%, 3.33% and 6.30% in May month of 2018, 2019 & 2020 respectively.

Fig 16: State/UT wise Presumptive Dengue cases and outbreaks for May 2020

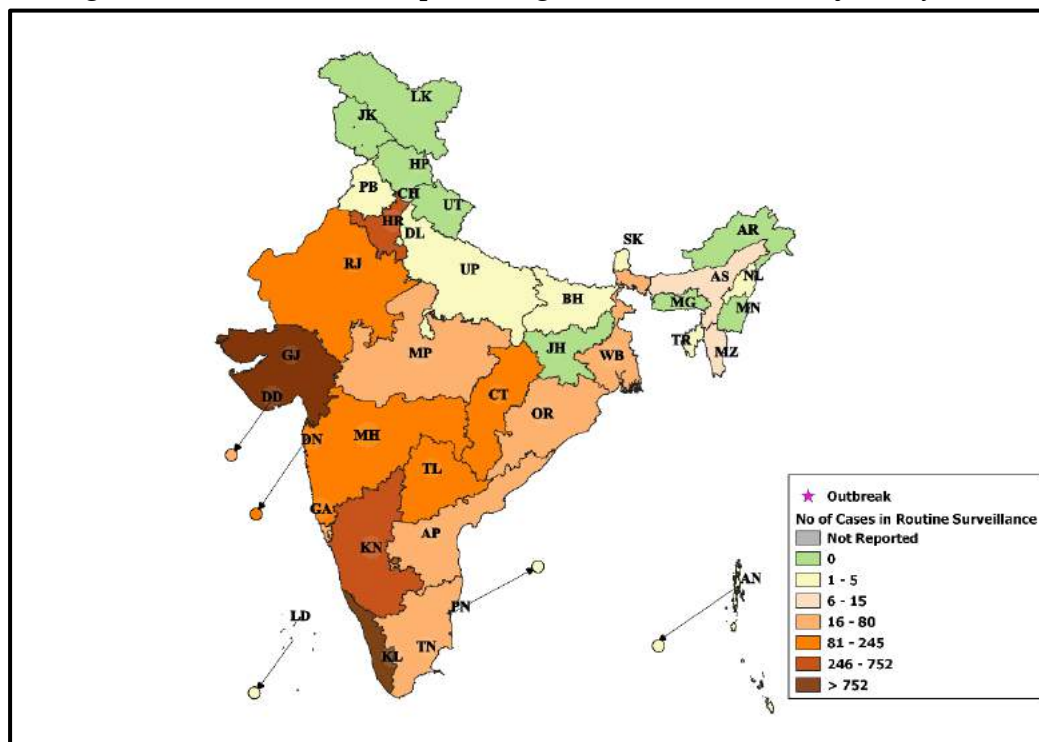


Fig 17: State/UT wise Lab Confirmed Dengue cases and outbreaks for May 2020

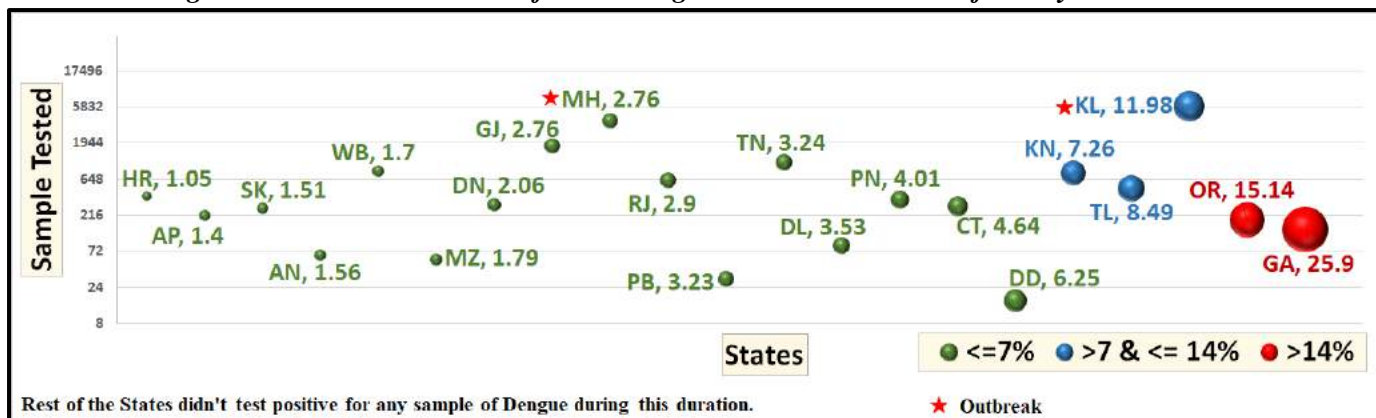
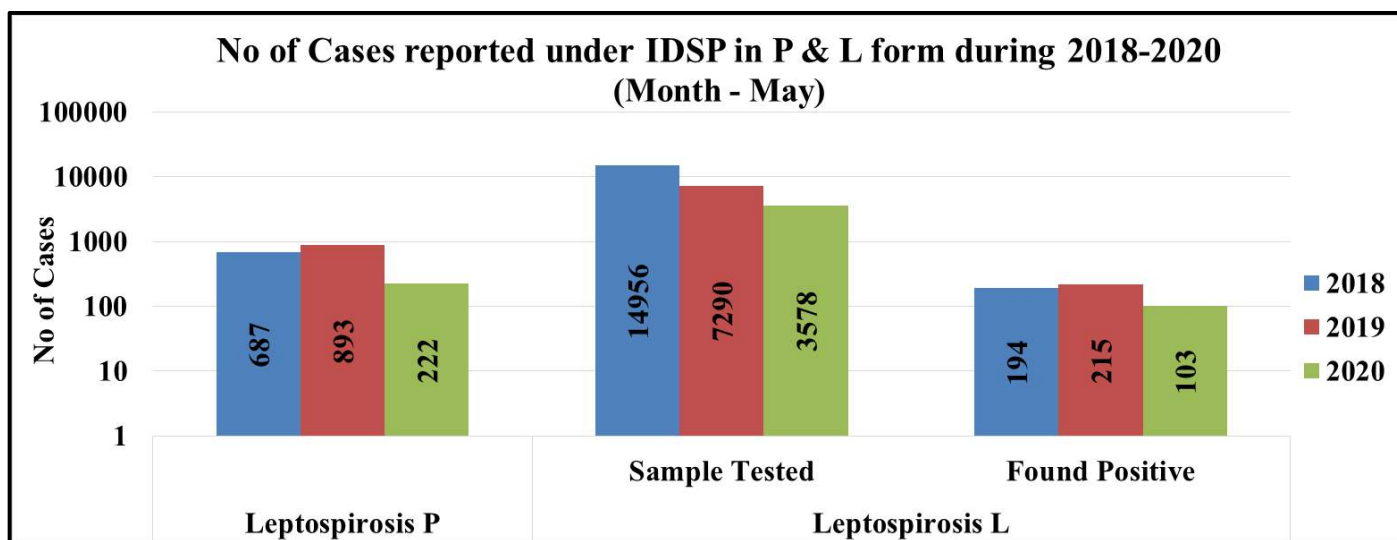


Fig 18: No. of Leptospirosis Cases reported under IDSP in P & L form during May 2018 – 2020



As shown in Fig 18, number of presumptive Leptospirosis cases, as reported by States/UTs in ‘P’ form was 687 in May 2018; 893 in May 2019 and 222 in May 2020. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in May 2018; 14956 samples were tested for Leptospirosis, out of which 194 were found positive. In May 2019; out of 7290 samples, 215 were found to be positive and in May 2020, out of 3578 samples, 103 were found to be positive.

Sample positivity of samples tested for Dengue has been 1.30%, 2.95% and 2.88% in May month of 2018, 2019 & 2020 respectively.

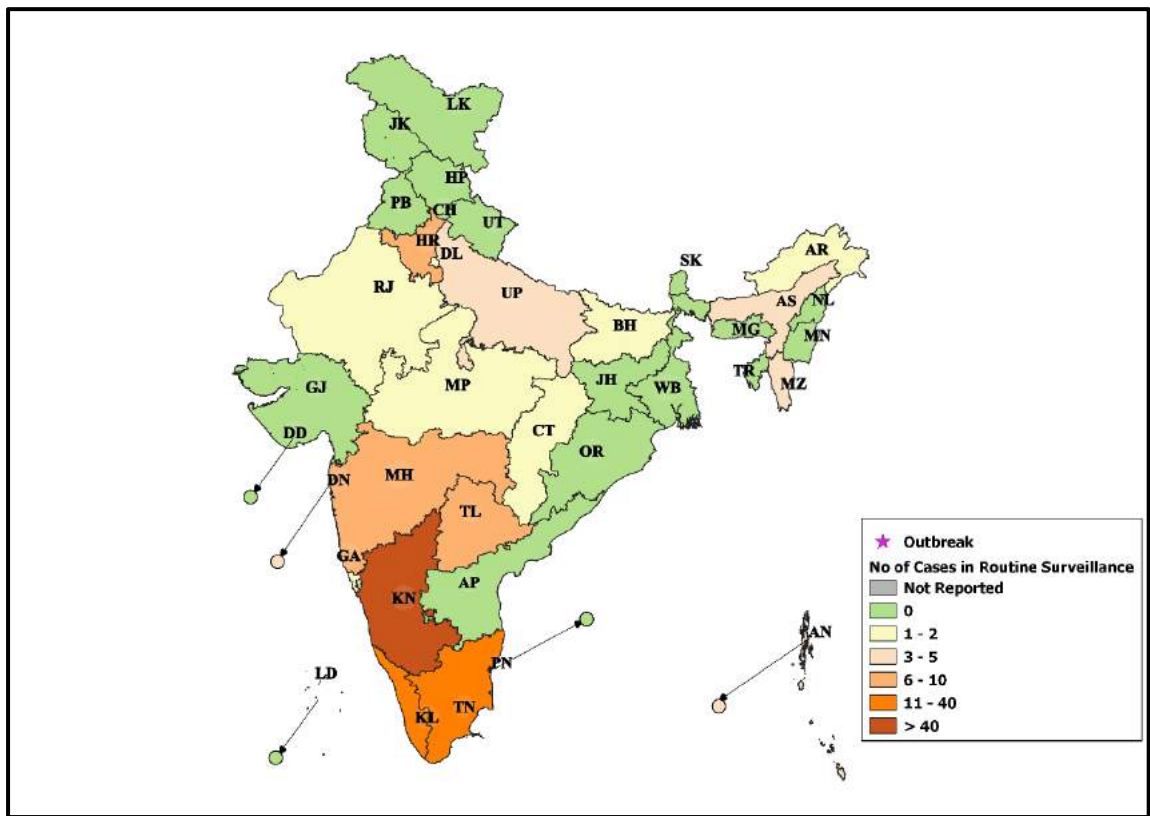


Fig 19: State/UT wise Presumptive Leptospirosis cases and outbreaks for May 2020

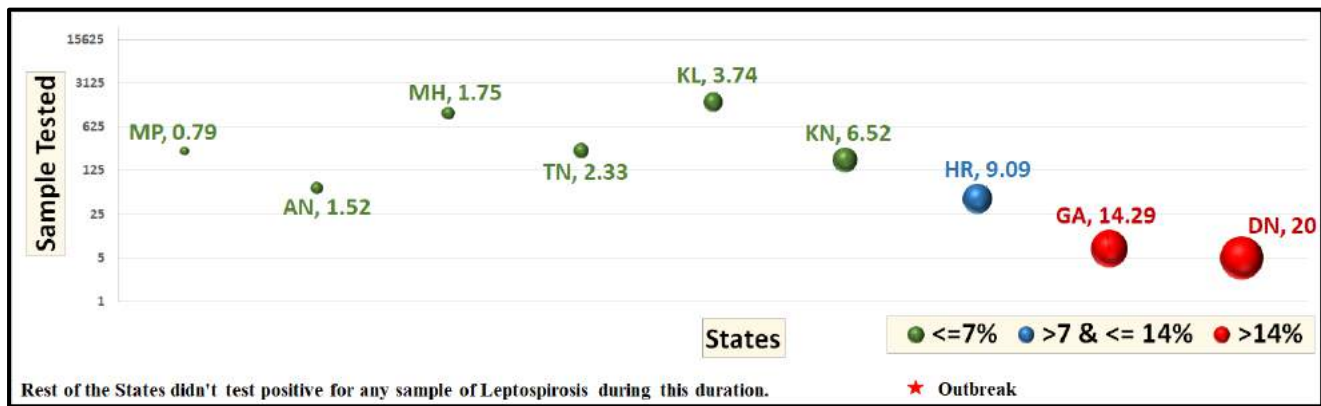
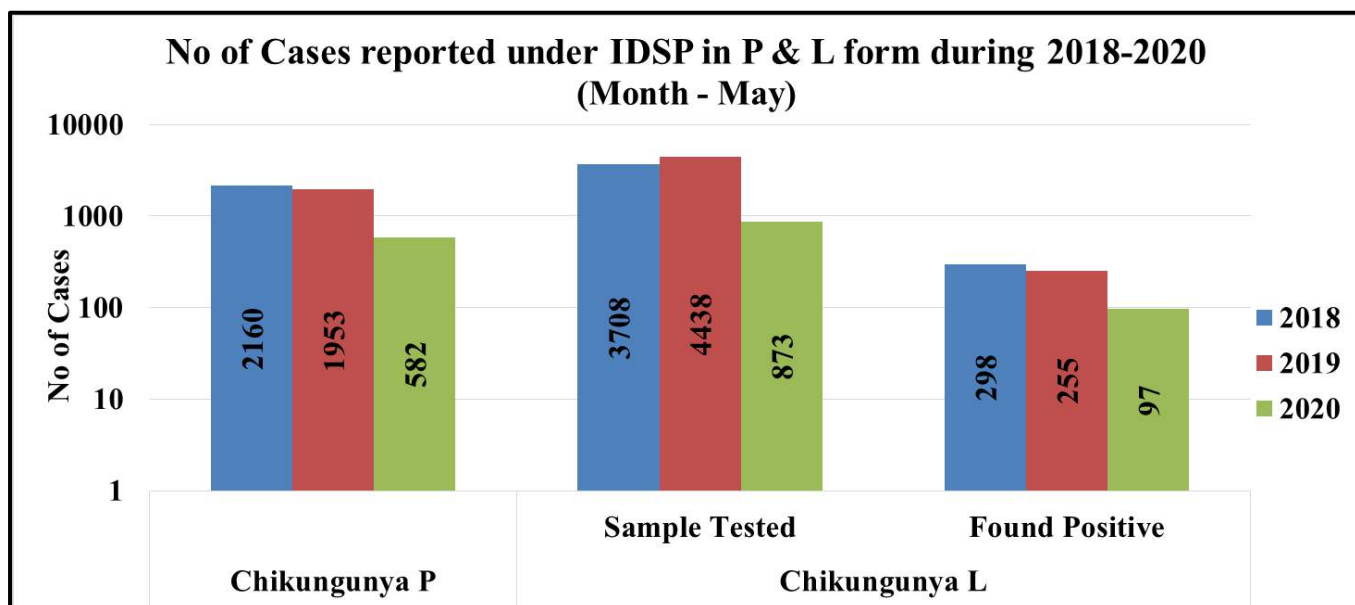


Fig 20: State/UT wise Lab Confirmed Leptospirosis cases and outbreaks for May 2020

Fig. 21: No. of Chikungunya Cases reported under IDSP in P & L form during May 2018 - 2020



As shown in Fig 21, number of presumptive Chikungunya cases, as reported by States/UTs in 'P' form was 2160 in May 2018; 1953 in May 2019 and 582 in May 2020. These presumptive cases are diagnosed on the basis of standard case definitions provided under IDSP.

As reported in L form, in May 2018; 3708 samples were tested for Chikungunya, out of which 298 were found positive. In May 2019; out of 4438 samples, 255 were found to be positive and in May 2020, out of 873 samples, 97 were found to be positive.

Sample positivity of samples tested for Chikungunya has been 8.04%, 5.75% and 11.11% in May month of 2018, 2019 & 2020 respectively.

Fig 22: State/UT wise Presumptive Chikungunya cases and outbreaks for May 2020

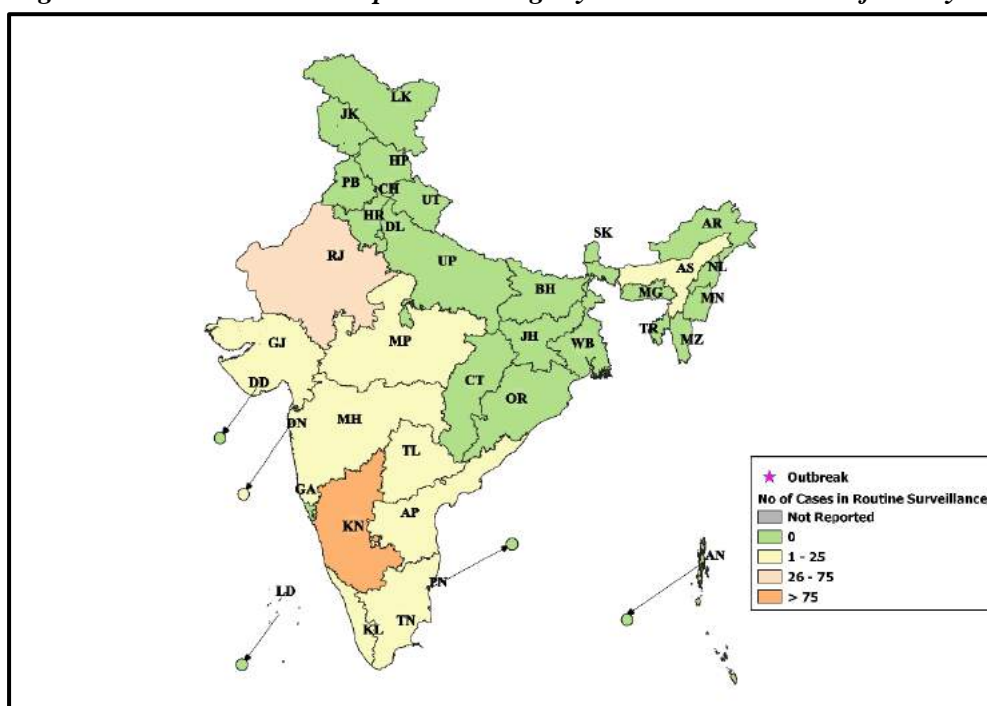


Fig 23: State/UT wise Lab Confirmed Chikungunya cases and outbreaks for May 2020

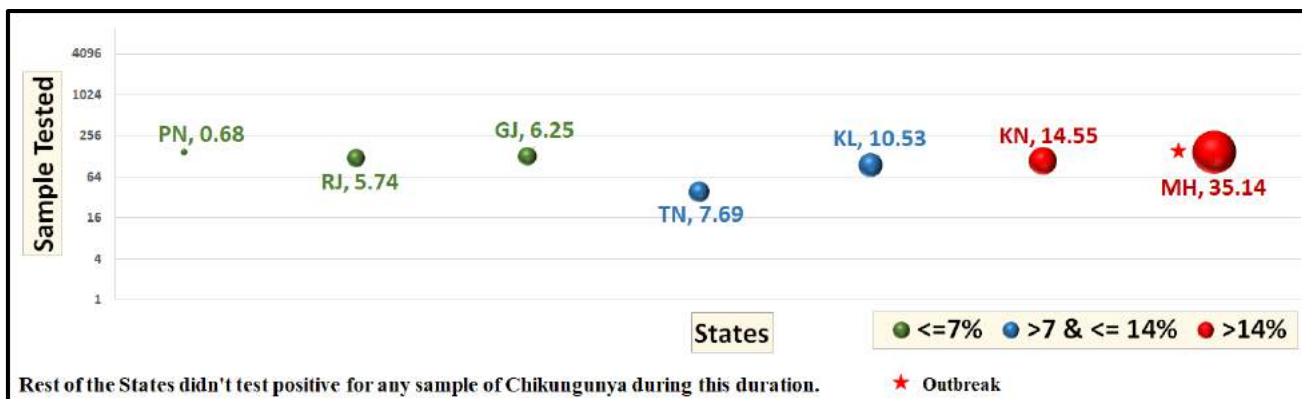
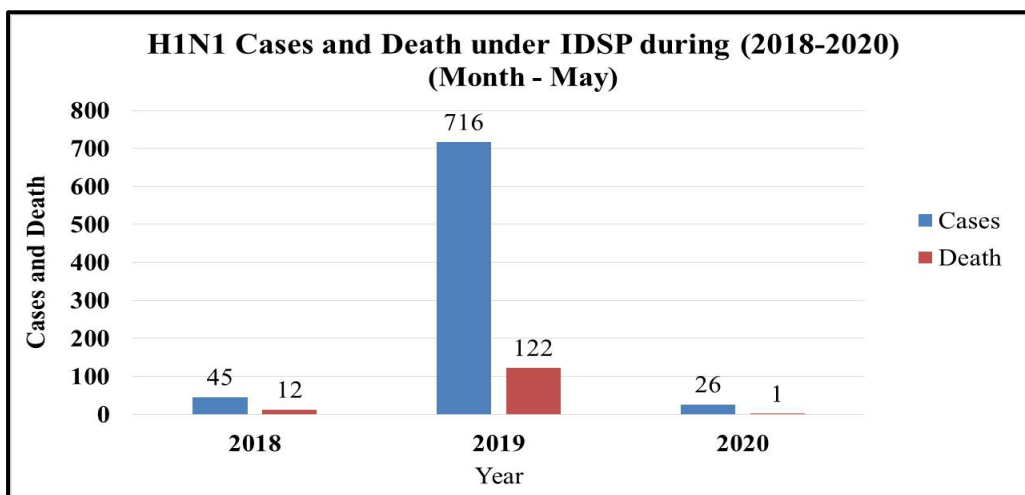


Fig 24: H1N1 cases reported under IDSP in L Form during 2018-2020 in May 2020



As shown in Fig 24. as reported in L form, in May 2018, there were 45 cases and 12 deaths. In May 2019, there were 716 cases and 122 deaths; and in May 2020, there were 26 cases and 1 death.

Case fatality rate for H1N1 were 26.67%, 17.04% and 3.85% in May month of 2018, 2019 & 2020 respectively.

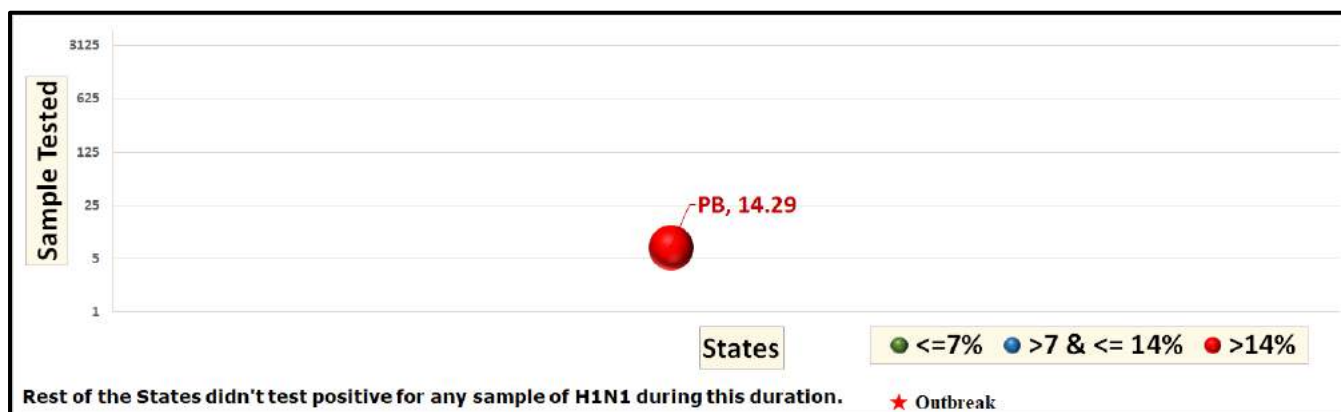


Fig 25: State/UT wise H1N1 cases and outbreaks for May 2020

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.

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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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