



ANNUAL REPORT 2018

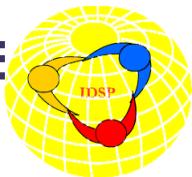


INTEGRATED DISEASE SURVEILLANCE PROGRAMME
NATIONAL CENTRE FOR DISEASE CONTROL (NCDC)

22 Shamnath Marg, Delhi - 110054

Tel. No. +91-11- 23830318, Fax. No. +91-11-23922677

Email: ids-pnp@nic.in





**INTEGRATED DISEASE SURVEILLANCE PROGRAMME
NATIONAL REVIEW 2018 AT LUCKNOW,
UTTAR PRADESH**

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INTEGRATED HEALTH INFORMATION PLATFORM (IHIP)

INTEGRATED HEALTH INFORMATION PLATFORM (IHIP)

- At the request of MoHFW, WHO has designed the Integrated Health Information Platform (IHIP), a software application, which is web-enabled, near-real-time, village wise, case based, electronic health information system with incorporation of key features like advanced data modelling & analytical tools, GIS enabled graphical representation of data, role & hierarchy-based feedback & alert mechanisms, geo-tagging of health facilities, scope for data integration with other health programs etc.
- Integrated Disease Surveillance Programme (IDSP) is the first stakeholder to the Integrated Health Information Platform (IHIP) for reporting of case based disease surveillance data directly from health facilities and labs across all States and Union Territories

Key Features of Integrated Health Information Platform (IHIP)

- Electronic e-Surveillance system accessible at all levels (from villages, districts, states and central level)
- Integrated data reporting approach among Syndromic, Presumptive & Laboratory Surveillance
- Real time, village level, case based data reporting
- Community based Syndromic Surveillance through mobile application
- Advanced data modelling & analytical tools
- GIS enabled Graphical representation of data into integrated dashboard
- Role & hierarchy-based feedback & alert mechanisms
- Geo-tagging of reporting health facilities
- Scope for data integration with other health programs

Rollout & Implementation of IHIP in the States in Year 2018

- State Surveillance Officers of IDSP of all States are already sensitized & oriented on IHIP IT platform in a National Review Meeting of IDSP at Lucknow, Uttar Pradesh during 3-5 May 2018.
- National Training of Trainers (TOT) workshop on use of Integration of Health Information Platform (IHIP) for Integrated Disease Surveillance Programme (IDSP) was conducted

by WHO on 26-27th June 2018 at New Delhi to create master trainers from 5 States (Karnataka, Andhra Pradesh, Odisha, Uttar Pradesh and Himachal Pradesh)

- State & District level TOT trainings on use of IHIP for IDSP were conducted in 7 States
- BSNL Server procurement for IHIP Portal was done
- Login IDs & Password for all health facilities were provided to the all health facilities of 7 States
- Soft launch of Integrated Disease Surveillance Programme (IDSP) module of Integrated Health Information Platform (IHIP) was done through Video conferencing by Secretary (Health & Family Welfare), Govt of India on 26th November 2018 at New Delhi in 7 selected States viz: Karnataka (All districts), Andhra Pradesh (All districts), Himachal Pradesh (All districts), Uttar Pradesh (10 districts), Odisha (17 districts), Telangana (All districts) & Kerala (6 districts)
- IHIP help-desk through toll free number (18001801104), email ID (idsp.help@gmail.com), service requests through IHIP portal etc. was made operational to help & resolve the queries observed during data entry operations.
- Districts in the state have initiated reporting on IHIP for which monitoring & follow up was started from CSU, IDSP.



Soft Launch of IHIP manual by Smt. Preeti Sudan, Secretary, Health & Family Welfare, Government of India on 26 November 2018

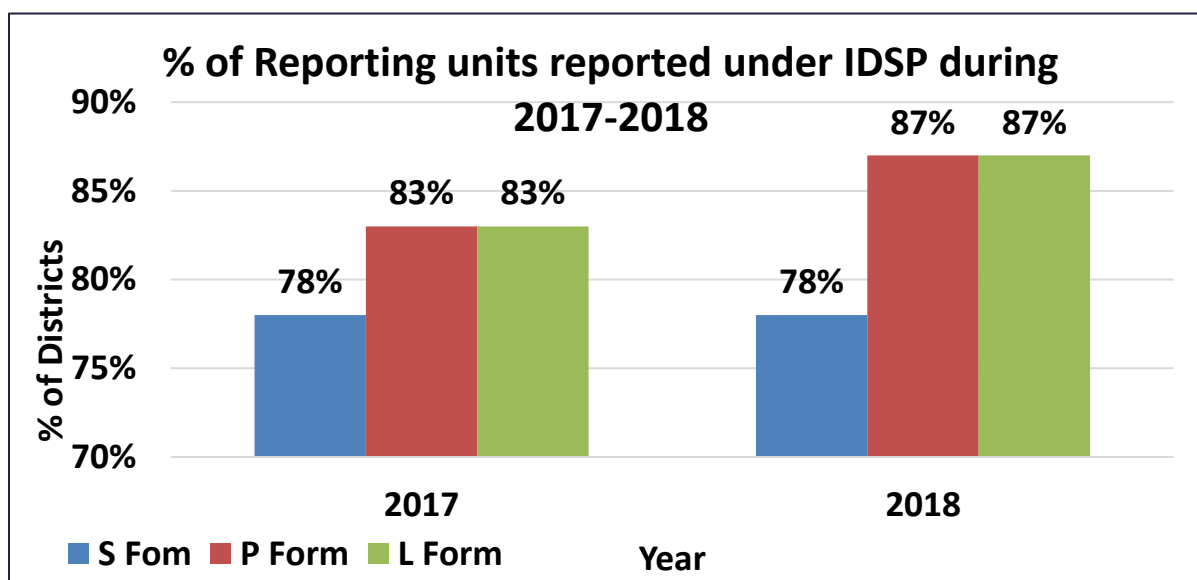
PERFORMANCE OF IDSP IN 2018

DATA MANAGEMENT & OUTBREAK MANAGEMENT UNDER IDSP

Data Management

Under IDSP data are collected on epidemic prone diseases on weekly basis (Monday-Sunday). The information is collected on three specified reporting formats, namely “S” (suspected cases), “P” (presumptive cases) and “L” (laboratory confirmed cases) filled by Health Workers, Clinicians and Laboratory staff respectively. The weekly data gives information on the trends and seasonality of diseases. Whenever there is a rising trend of illnesses in any area, it is investigated by the Rapid Response Team (RRT) to diagnose and control the outbreak. Data analysis and actions are being undertaken by respective State/District Surveillance Units. Emphasis is now being laid on reporting of surveillance data from major hospitals. 95% districts in the country report weekly surveillance data on epidemic prone diseases through e-mail or portal in 2018.

The Details as follows including previous weeks:



Year/ Reportin g Forms	Never Reported Districts			Irregular Reporting Districts (Reported less than 80% weeks)			Never Reported Units			Private Sector Involvement	
	S Form	P Form	L Form	S Form	P Form	L Form	S Form	P Form	L Form	P Form	L Form
2017	17	7	7	53	19	24	10943	1858	1506	11%	13%
2018	14	6	5	68	38	37	8620	989	660	13%	15%

Outbreak Management

In addition, States and districts have been asked to notify the outbreaks immediately to the system. On an average of 30-35 outbreaks are reported every week to Central Surveillance Unit (CSU). A total of 1606 Outbreaks of epidemic prone diseases were reported and responded through IDSP in 2018 (Details at Annexure 1 & 2). Earlier only a few outbreaks were reported in the country by the States/UTs.

Year wise number of outbreaks reported under IDSP during 2015-2018				
Year	2015	2016	2017	2018
Number of Outbreaks	1935	2679	1714	1606

Lab Confirmation Details of Outbreaks

Excluding disease alerts of Chickenpox, Buffalo pox, Gas Poisoning, Vitamin A over dosage, and Food Poisoning and Other Poisonings/Intoxications								
Years	2015		2016		2017		2018	
Number of outbreaks where Lab facilities utilized by sending human samples (includes etiology confirmed)*	1125	77%	1395	73%	989	81%	896	76%
Number of outbreaks where etiology confirmed by laboratory	679	47%	806	42%	615	50%	456	39%
Total number of outbreaks reported in the year	1457		1880		1220		1176	

**State & Year wise number of outbreaks reported under IDSP
(During 2016-2018)**

Sl. No.	State / UTs	2016	2017	2018	Total
1	Andaman & Nicobar	NR*	NR*	1	1
2	Andhra Pradesh	53	34	35	122
3	Arunachal Pradesh	28	13	12	53
4	Assam	103	95	97	295
5	Bihar	255	136	150	541
6	Chandigarh	2	5	5	12
7	Chhattisgarh	120	61	35	216
8	Dadra and Nagar Haveli	17	3	5	25
9	Daman & Diu	2	1	NR*	3
10	Delhi	22	2	9	33
11	Goa	2	2	9	13
12	Gujarat	148	101	77	326
13	Haryana	17	11	23	51
14	Himachal Pradesh	11	20	14	45
15	Jammu & Kashmir	56	66	45	167
16	Jharkhand	84	64	79	227
17	Karnataka	238	184	135	557
18	Kerala	112	92	96	300
19	Lakshadweep	1	NR*	NR*	1
20	Madhya Pradesh	165	86	90	341
21	Maharashtra	217	191	163	571
22	Manipur	6	6	16	28
23	Meghalaya	9	11	5	25
24	Mizoram	9	4	8	21
25	Nagaland	4	9	7	20
26	Odisha	186	72	45	303
27	Puducherry	4	4	14	22
28	Punjab	77	42	43	162
29	Rajasthan	98	46	42	186
30	Sikkim	3	3	2	8
31	Tamil Nadu	110	102	128	340
32	Telangana	57	28	28	113
33	Tripura	1	9	10	20
34	Uttar Pradesh	239	156	129	524
35	Uttarakhand	17	12	16	45
36	West Bengal	206	43	33	282
	Grand Total	2679	1714	1606	5999

*No Report Sent by States/UTs.

Year wise number of outbreaks reported under IDSP for Major Diseases/Conditions during 2016-2018

Sl. No.	Diseases	2016	2017	2018	Total
1	Acute Diarrheal Diseases/Dysentery	721	370	338	1429
2	Acute Encephalitis Syndrome (AES)	24	30	51	105
3	Anthrax	32	23	6	61
4	Brucellosis	2	2	1	5
5	Chickenpox	401	229	194	824
6	Chikungunya	50	72	89	211
7	Cholera	114	31	36	181
8	Crimean-Congo Haemorrhagic fever (CCHF)	12	5	3	20
9	Dengue	177	152	100	429
10	Diphtheria	24	9	9	42
11	Enteric Fever	14	19	13	46
12	Food Poisoning	395	265	234	894
13	Kala Azar	2	1	5	8
14	Kyasanur Forest Disease	4	1	2	7
15	Leptospirosis	11	5	7	23
16	Malaria	39	35	19	93
17	Measles/Rubella	294/41	229/9	309/2	832/52
18	Mumps	45	27	30	102
19	Nipah Virus Encephalitis	0	0	1	1
20	Pertussis	2	4	2	8
21	Scrub Typhus	6	9	10	25
22	Viral Hepatitis A	0	35	36	71
23	Viral Hepatitis A & E	0	1	0	1
24	Viral Hepatitis B	0	0	1	1
25	Viral Hepatitis C	1	0	1	2
26	Viral Hepatitis E	0	29	8	37
27	Viral Hepatitis/Jaundice	114	12	23	149
28	Zika Virus Disease (ZVD)	0	2	2	4
Total		2525	1606	1532	5663

MEDIA SCANNING AND VERIFICATION CELL (MSVC)

Media scanning is an essential component under event based surveillance system. MSVC was established to capture unusual health events/information through media (newspaper, television and internet). 22 news daily and nearly 100 web sites are screened daily and on real time for capturing unusual health events. These unusual health events are categorized into health alerts and the information are categorized into health information. The health alerts provides an early warning signal for any unusual event and also helps in providing supplemental information for the outbreak whereas the health information provides articles on innovation in science, current studies/epidemiological trends, health programme reviews, reports etc.

Under IDSP, State Surveillance Units at State and District Surveillance Units at Districts are established. The health alerts are screened and shared with concerned State/Districts for verification and feedback on a daily basis whereas health information are shared to update regarding research articles, reports etc.

For the year 2018, a total of 626 health alerts and 703 health information were scanned and shared with States and Districts. Health alerts related to Food Poisoning (18%), Dengue (13%), Water borne disease (10%), Swine Flu (9%) were majorly reported in the media. Out of 626 health alerts shared; 81% (511) of the health alerts were given feedback from the States/Districts. 17% (11) of these health alerts were verified false by the States. False alerts were related to vaccination, anthrax, dengue, food poisoning, chlorine gas leak etc. The verified health alerts having epidemic potential were reported as an early warning signal by States.

Media Scanning and Verification Cell at States

Visualizing the importance of media scanning at the national level; the States have started to establish media scanning verification cell at the State level. A total of 20 States have established the Media Scanning Verification Cell at the State capital. A total of 421 health alerts were screened and 220 early warning signals were generated from media by the State MSVC.

Media Scanning & Verification Cell established at States till December 2018



LABORATORY STRENGTHENING

The States and Districts laboratories are been strengthened for providing the Diagnostic Support for detection of epidemic prone diseases.

At State level, 118 State Referral labs are present in 24 States. State Referral lab (SRL) network has been established under IDSP by utilizing existing functional laboratories at medical colleges and are linked to adjoining districts for providing diagnostic services for epidemic prone diseases during outbreaks. SRLs are provided with financial assistance.

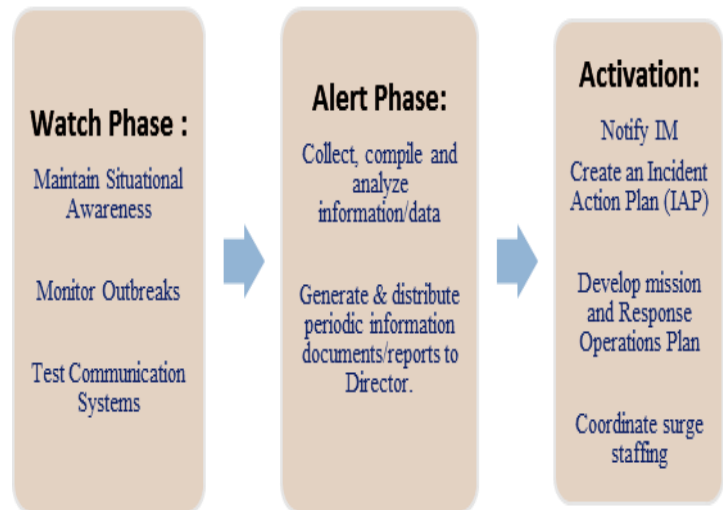
At District Level, 292 District Public Health laboratories have been sanctioned against the target of strengthening of 235 DPHLs and 192 District Public Health laboratories in 29 states have been made functional. District public health laboratory (DPHL) at District hospital have been strengthened for diagnosis of epidemic prone diseases so as to generate lab confirmed routine surveillance data and support investigation of outbreaks. These labs are being supported by trained manpower, funds for essential equipment and an annual grant of Rs 4 lakh per annum per lab for reagents and consumables.

The technical Specifications for Equipment to be procured for District Public Health Laboratories of IDSP have been updated. For ready reference these Specifications are circulated to the State Surveillance Unit and are also made available on IDSP Website

STRATEGIC HEALTH OPERATIONS CENTRE (SHOC)

Background

The establishment of a Strategic Health Operation Centre at NCDC was approved by MoHFW in year 2007, and installed in year 2013 with objectives to act as a command centre to manage disease outbreaks, public health emergencies or any disaster situation and to strengthen disease surveillance & response using the latest information & communication technology. The execution of SHOC have different phases as shown in picture.



Since 2014, SHOC has been activated several times in response to outbreaks of various epidemic prone diseases

Activities in 2018-19

In year 2018, SHOC has been activated in response to following outbreaks and monitoring of Health conditions.

- During the activation of SHOC, data on above disease/health conditions was collected, analyzed and disseminated to MoHFW.

Execution of SHOC in year 2018-19			
Threat /Outbreaks	Execution Phase	Date of Activation	Date of Deactivation
Heat Wave related illness morbidity and mortality	Alert phase	Every year 1 st April to 31 st July. As per advisory issued from IMD, data collection has been started from 15 th March, 2018	
Nipah Virus Disease outbreak	Activation phase (Level 1 & Level 2)	24 th May, 2018	13 th July, 2018. Still at watch phase
Epidemic Prone Diseases during Flood in States	Watch Phases & Alert Phase	Every year during rainy season	
	Activation at Level 1	16 th August, 2018	03 rd October, 2018
Zika virus Diseases outbreak	Alert Phase & Activated at Level 1	05 th October, 2018	still at watch Phase
Seasonal Influenza A (H1N1)	Watch phase	Whole year at watch phase	
	Alert Phase	02 nd November, 2018	03 rd April, 2019

- Technical discussions were held under the chairmanship of Director NCDC for response and preventive measures to be taken.
- Media reports were collected and verified daily from the States on above diseases/Health condition.
- Technical guidelines and advisories were developed and shared with the States.
- During Nipah virus Outbreak, SHOC was activated at level 2 (working hours of duty officials and staff from 9am to 7pm, 7 days a week) to monitor the activities in all States.
- DGHS also reviewed the situation of Nipah virus disease and activities of central team posted at Kerala through SHOC.
- Logistics support for managing seasonal influenza A (H1N1) were provided to States based on their requisition.
- Video conferencing were done on daily basis with States. During Nipah virus outbreak, Video conferencing was carried out with 23 States from identified mini SHOC to clarify the doubts of the States regarding Nipah virus disease.
- A total number of 228 VC sessions were done from April 2018-March 2019
- Global Public Health EOC Exercise was held at SHOC from 4th -06th December, 2018, wherein Officials from NCDC/IDSP were participated.
- One day training on “Incident Management System Refresher Training on EOC” for NCDC/IDSP officials was conducted by expert from CDC on 9th August, 2018

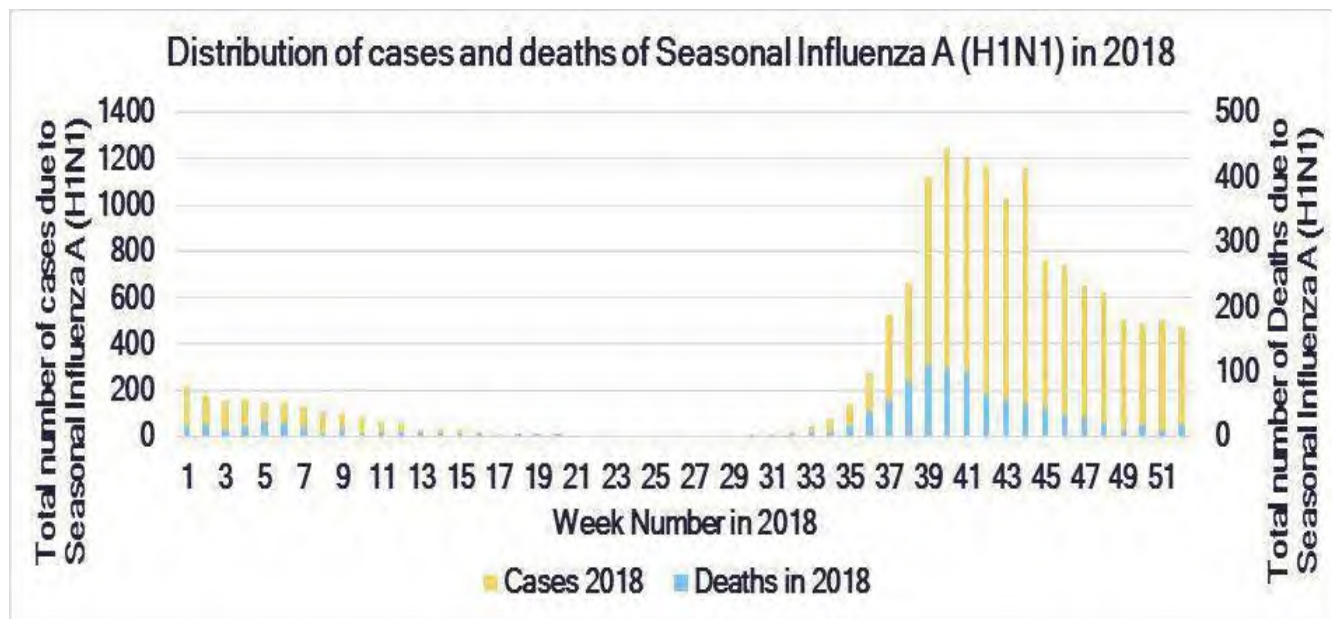


DISEASE TRENDS IN 2018

SEASONAL INFLUENZA

Seasonal Influenza A (H1N1) data collection under mandate of SHOC in 2018

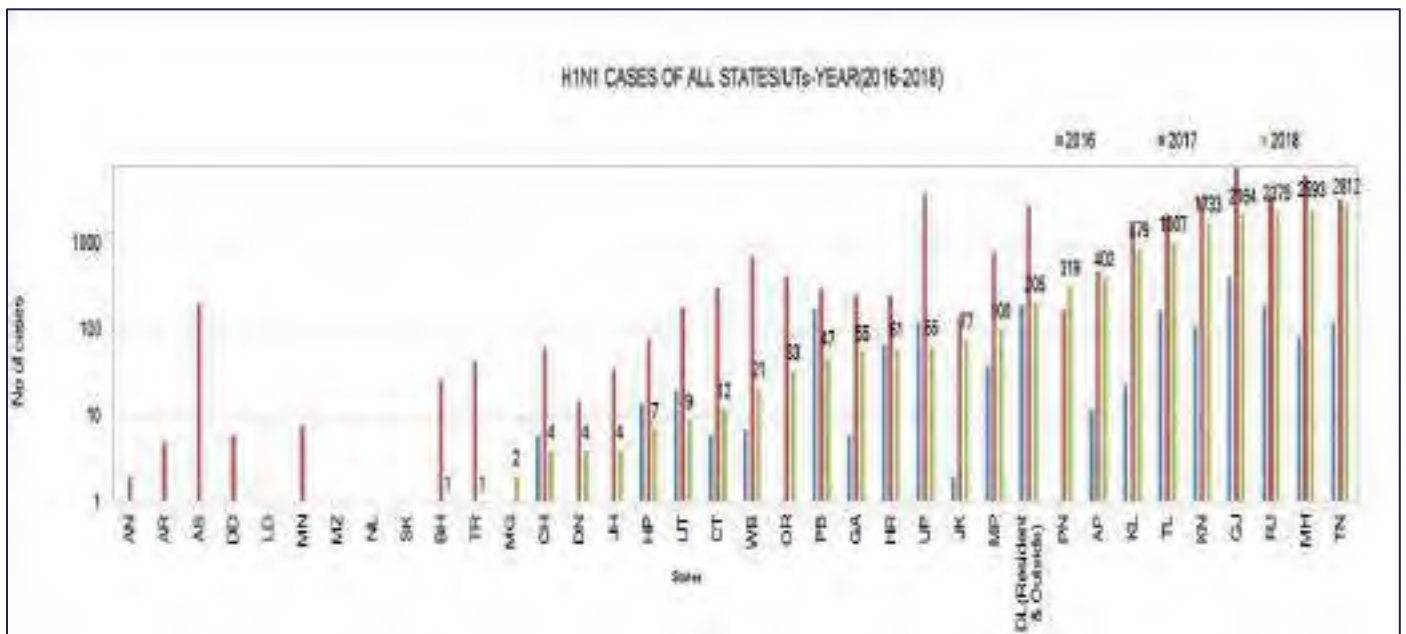
In 2018, total 15266 cases and 1113 deaths have been reported. Majority of the cases and deaths were reported from Rajasthan during month from January to April and again upsurge was observed from week 30th ending on 29 July, 2018, most of the cases and deaths being reported from Maharashtra, Gujarat followed by Rajasthan, Karnataka, Kerala, Tamil Nadu, Telangana, Andhra Pradesh, West Bengal and Puducherry.

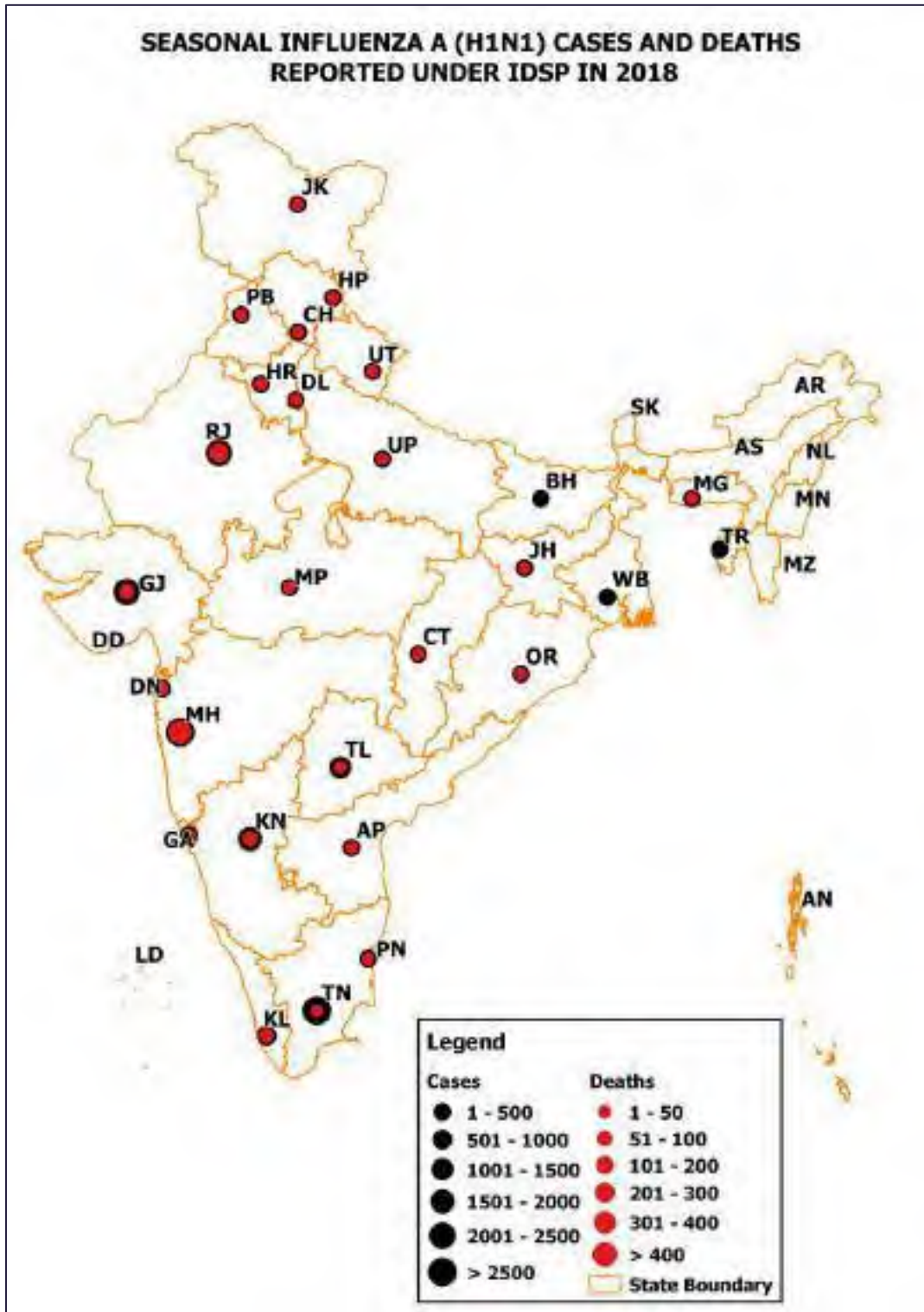


General recommendations based on the observations made by the Central Team during visits to various States

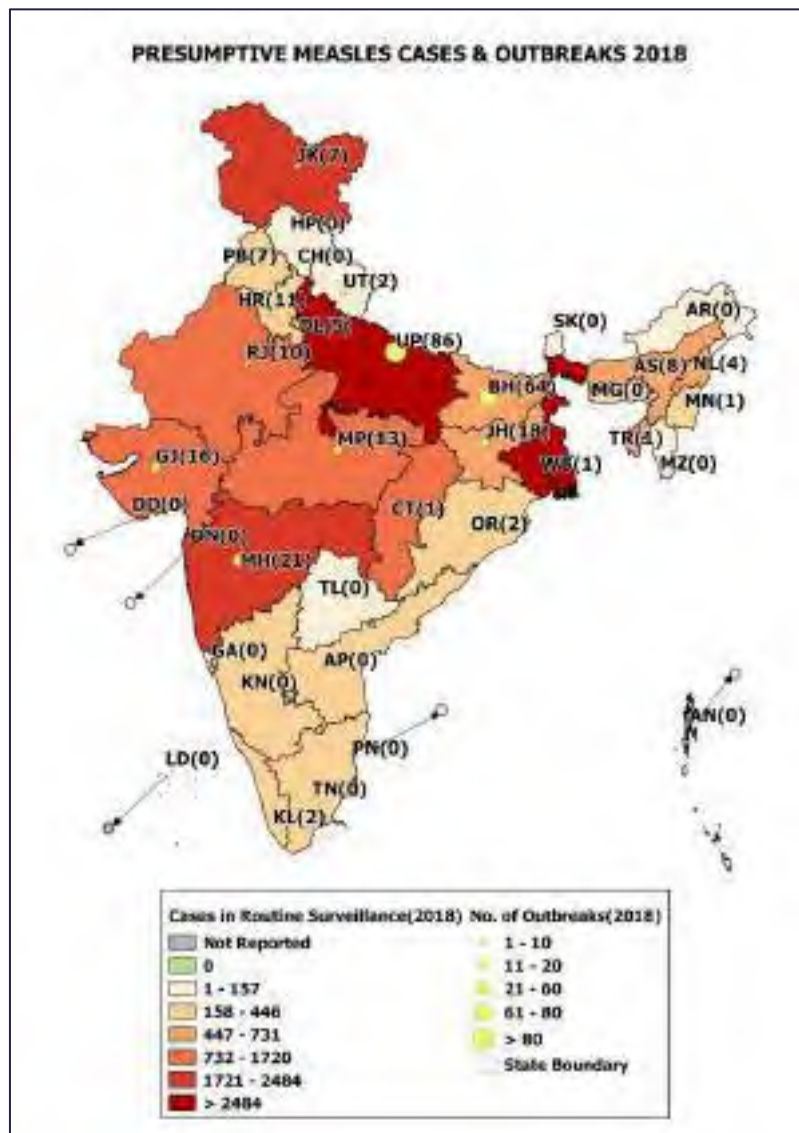
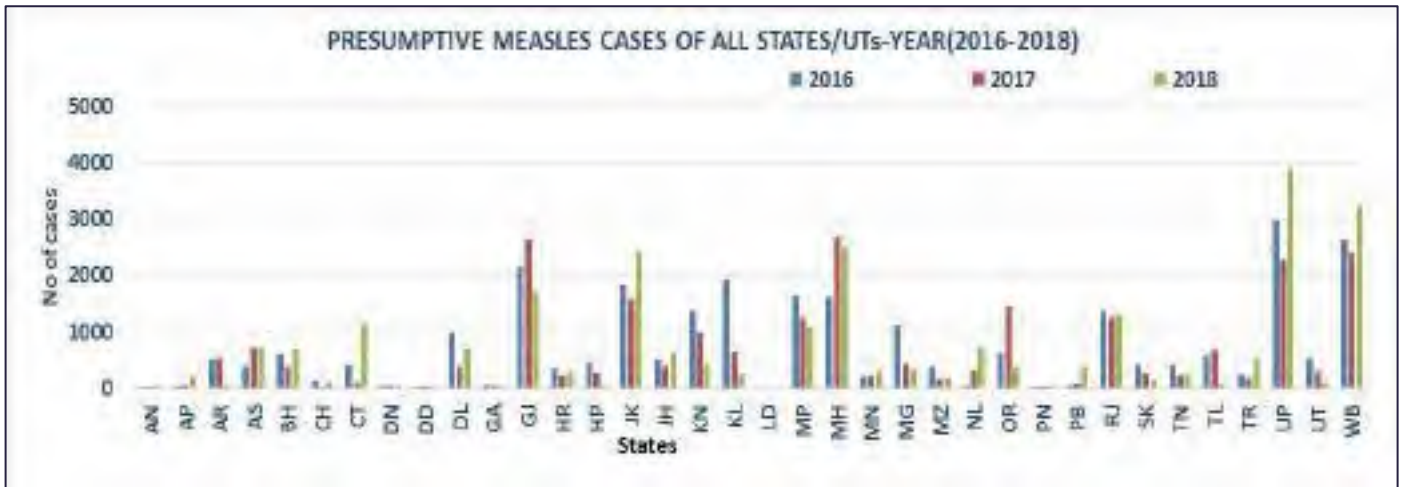
1. States are requested to continue for increased vigilance for the suspect cases. The drugs including Cap Oseltamivir (75mg, 30mg) and Syp. Oseltamivir were to be monitored for availability till the PHC/most peripheral Government health facilities
2. It was observed that majority of the patients were dying within 72 hrs after admission. Early identification and timely referral of the cases through proper categorization at the peripheral areas by orienting all the health care personnel is to be monitored

3. Only few percentage of the patients had received oseltamivir within 48hrs of onset of symptoms. States need to reorient their peripheral health staff for proper screening and categorization as per Gol guidelines
4. An orientation/reorientation of the health care staff posted in the isolation wards needs to be conducted for management of critical care patients at other district also on newer techniques and maneuvers
5. Category B patients need to be followed up at the field level and the line list of the same patients need to be maintained at the health facilities from where the Cap Oseltamivir had been distributed. State needs to ensure proper follow up so that in case of any deterioration of the health condition of the patient he can immediately be shifted appropriate tertiary care centre for proper management

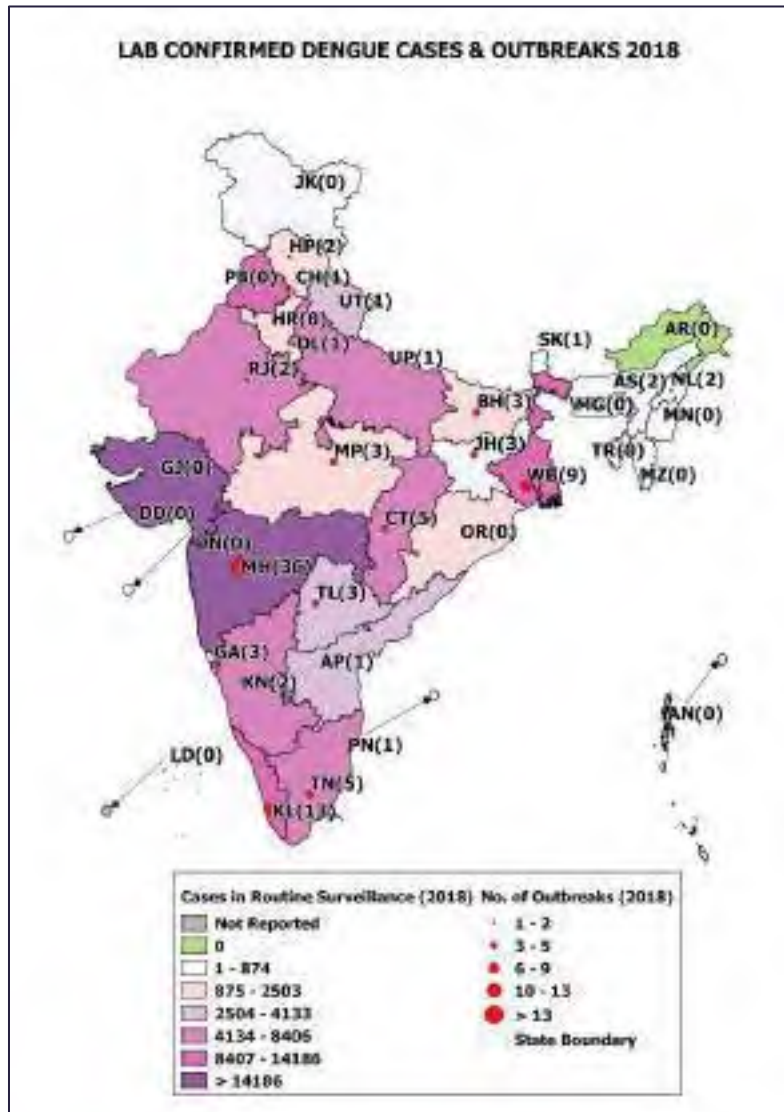
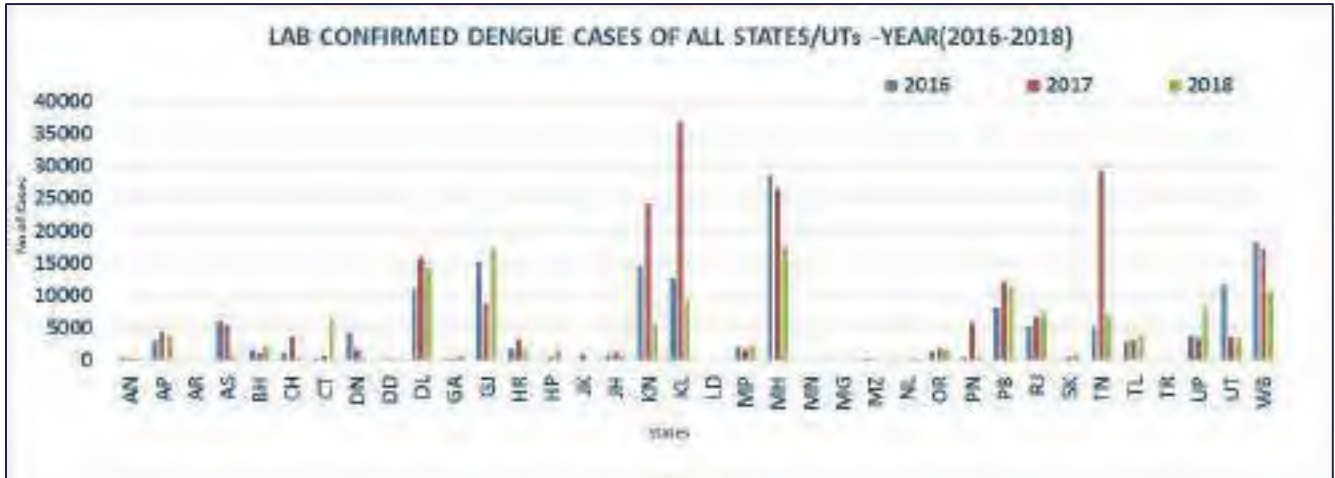




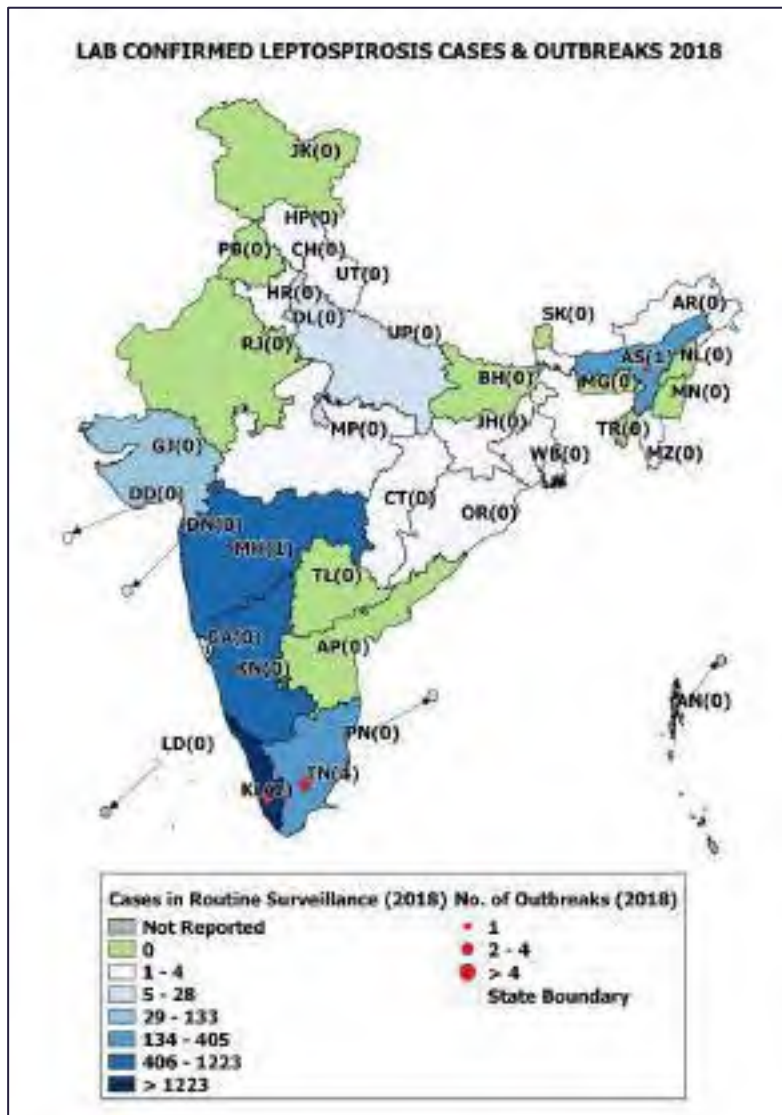
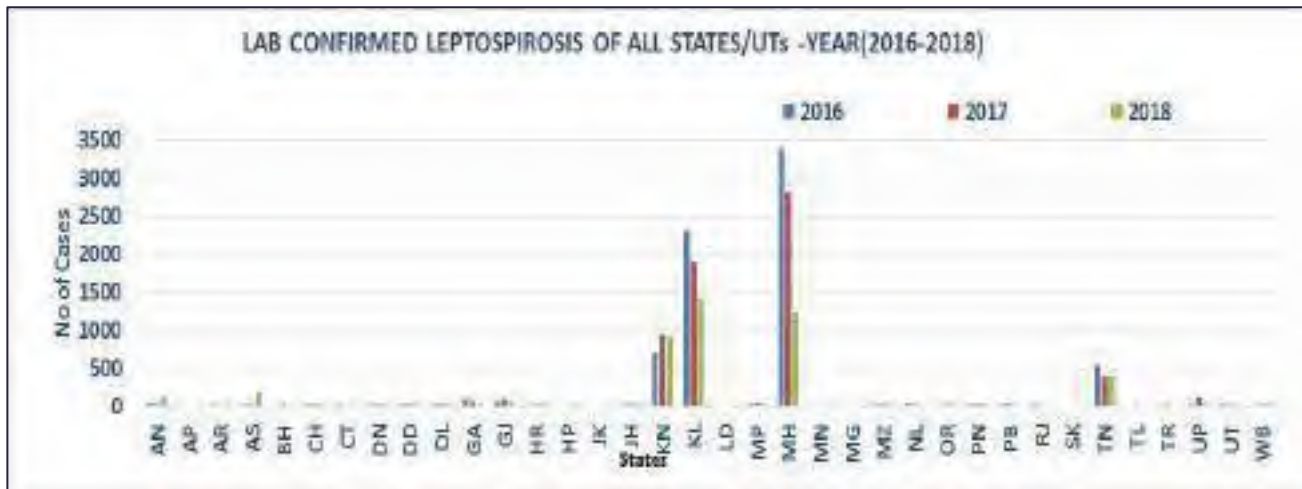
MEASLES



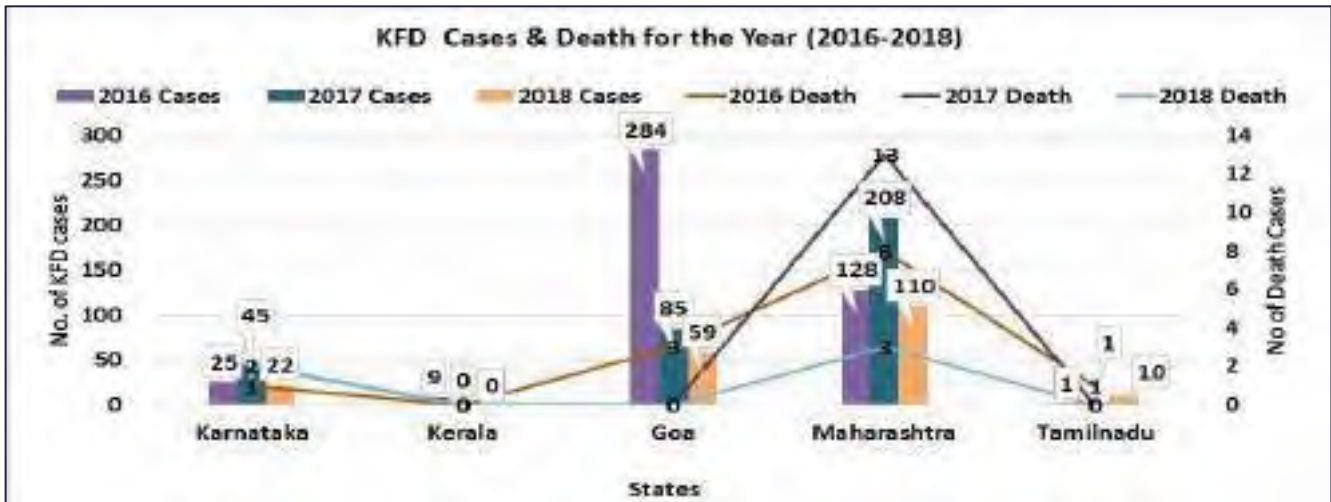
DENGUE



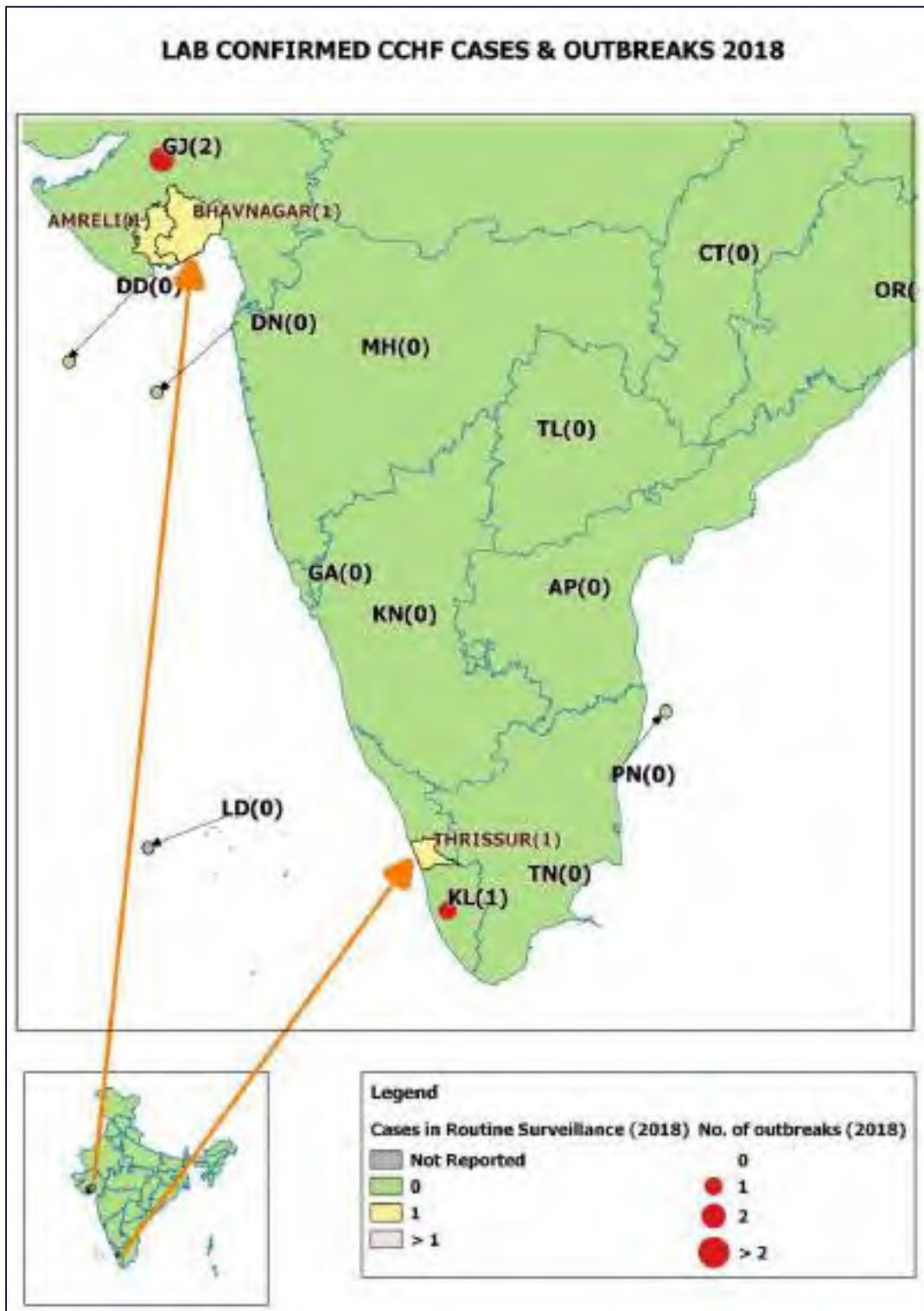
LEPTOSPIROSIS



KYASANUR FOREST DISEASE



CRIMEAN-CONGO HEMORRHAGIC FEVER



SURVEILLANCE REPORTS FROM STATES

SITUATIONAL ANALYSIS ON KYASANUR FOREST DISEASE (KFD) IN KARNATAKA

Contributed by: Dr Prakash JD CMD, Dr Kiran Nodal Officer KFD, Shivamogga & SSU Karnataka

History

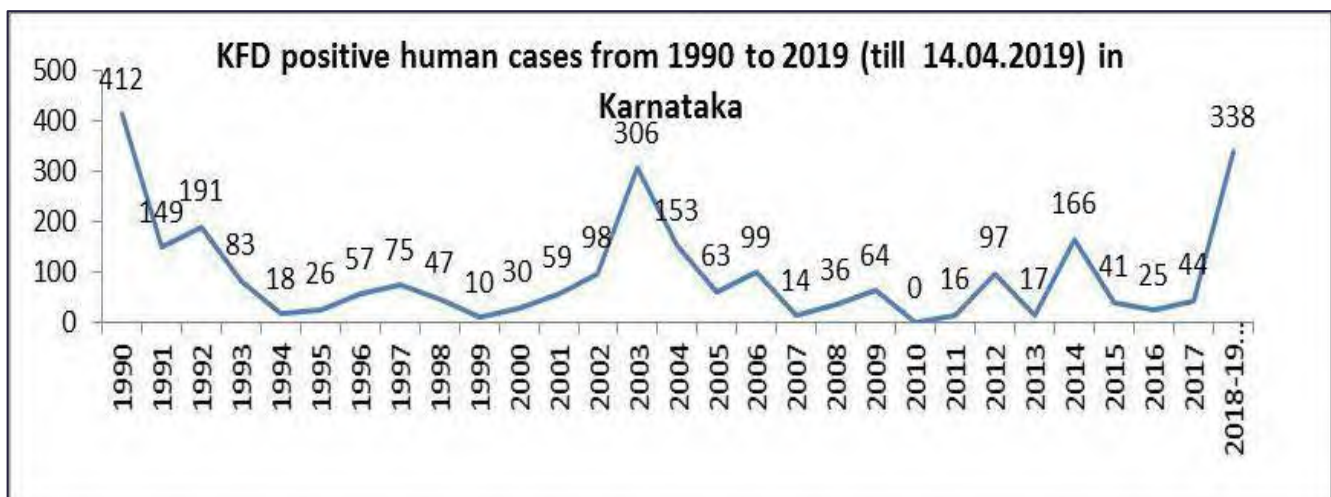
Kyasanur Forest Disease is caused by the bite of 'Ticks' which are infected with KFD Virus. The KFDV was first isolated in March 1957 from the tick samples of 'Kyasanur forest' in Soraba taluk of Shivamogga district of Karnataka state. This first outbreak of KFD reported 48 confirmed cases and 4 confirmed deaths.

KFD in neighbouring States of Karnataka:

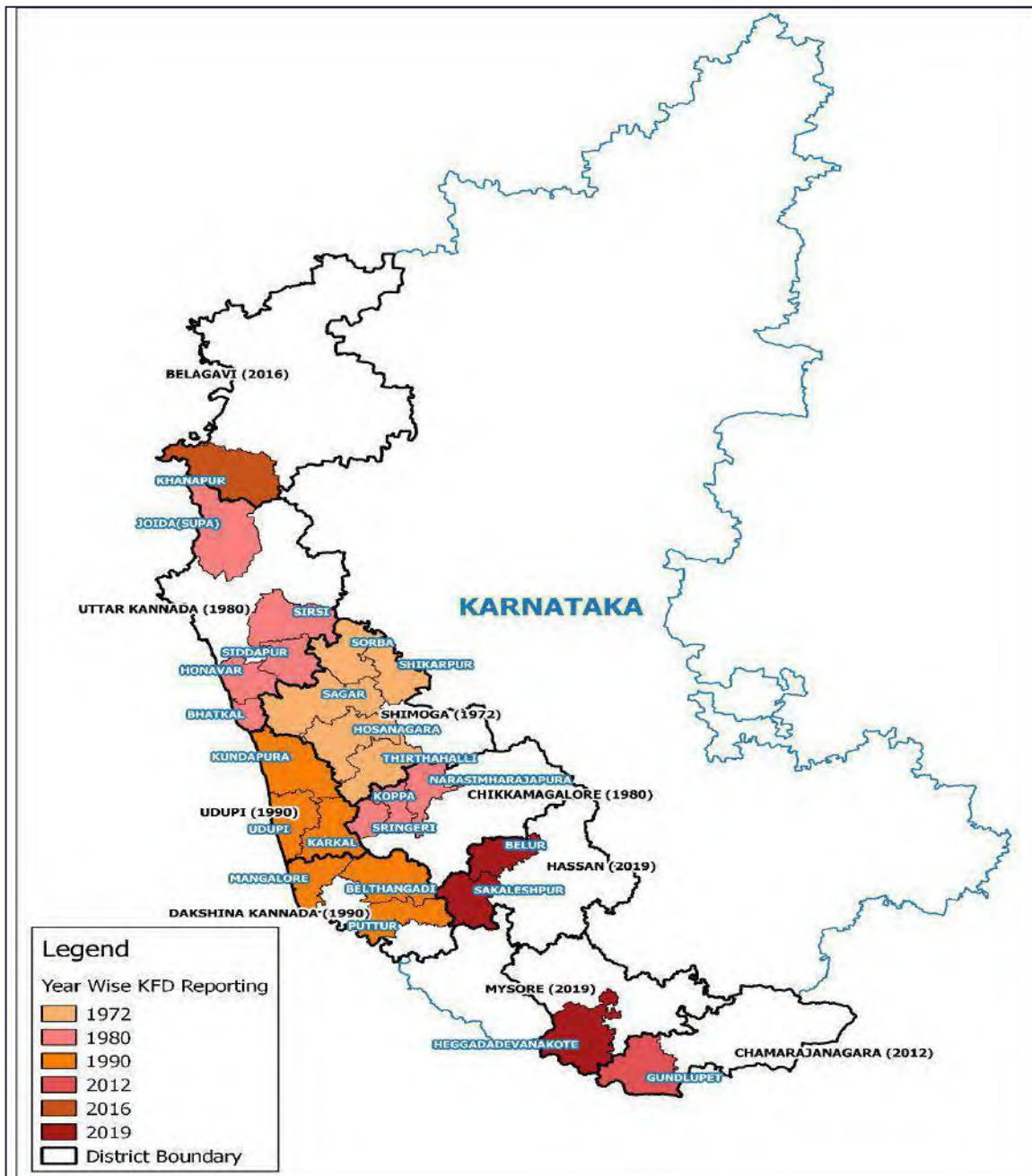
- In 2012-13: KFDV was detected in autopsy of dead monkeys in Nilgiri district of Tamil Nadu. No human case recorded.
- In 2013-2015: KFD in monkeys as well as human cases in Wayanad and Malappuram districts of Kerala.
- In 2015, KFD outbreak has been reported from North Goa district of Goa state.
- In 2016, KFD outbreak reported from Sindhudurg district of Maharashtra.

During 1983 and 1984, a major outbreak occurred with 354 confirmed cases and 110 deaths; and 183 confirmed cases with 139 deaths, respectively. In 1983, the government of Karnataka accorded sanction to manufacture & trial of KFD vaccine at Shivamogga. This led to the development of vaccines. But the vaccine compliance is poor as it is administered in multiple doses and causes pain after vaccination due to formalin. Moreover the vaccine-induced immunity was short lived.

Trend of KFD in Karnataka



Districts of Karnataka where KFD is endemic

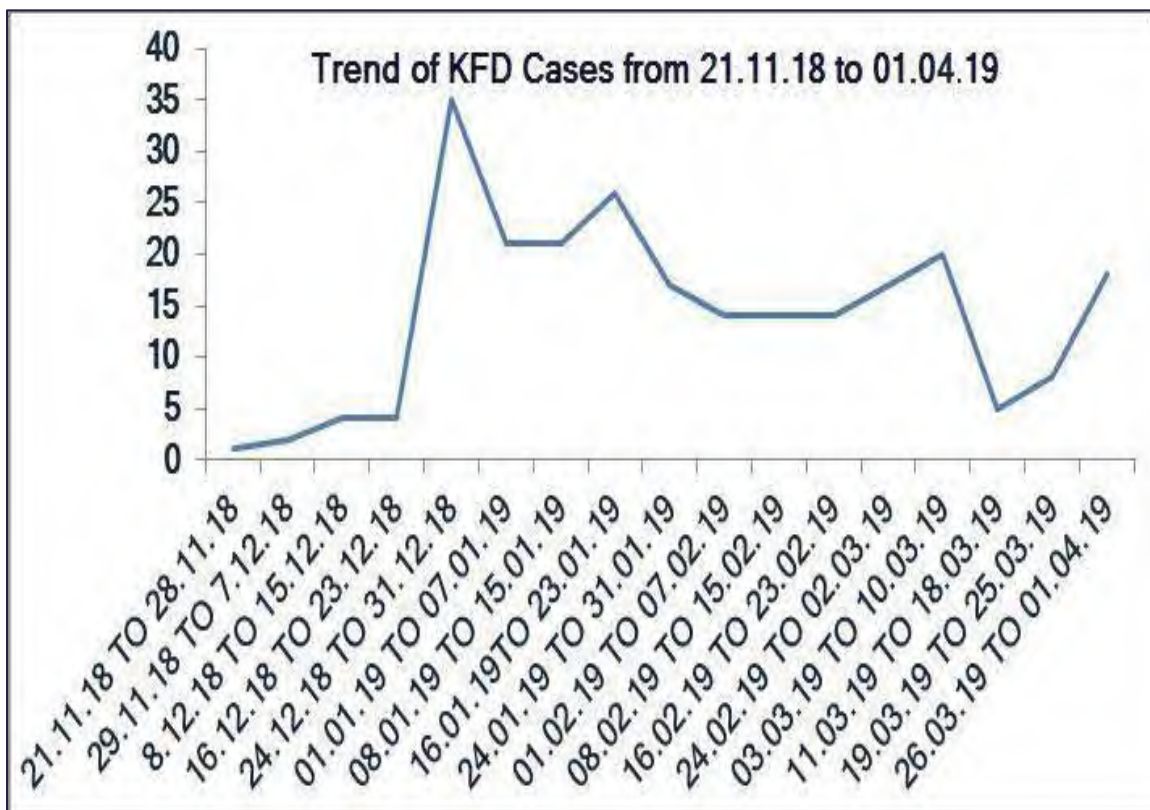


Outbreak of KFD in Shivamogga

The epicenter of current outbreak in Shivamogga was Aralagodu village in Sagara Taluka of Shivamogga district where the first human case of suspected KFD was reported on 24 November 2018. Sequence of events following this index case is mentioned below:

- 24th November 2018: outbreak response activities initiated, this included Passive surveillance at the PHC, active Surveillance in the community by frontline workers and Mass KFD Vaccination
- 29th November 2018: KFD confirmed Monkey death was reported at Marbidi village of Aralagodu.

As of now (14 April 2019), total confirmed Human KFD cases are 338 with 180 cases in Sagara Taluk and 94 in Thirthahalli Taluk. Total 11 confirmed deaths have occurred due to KFD during this outbreak out of which 8 are from one particular village i.e. Marbidi. Out of the 761 monkey deaths in Shivamogga district, 41 monkey deaths are KFD confirmed. Sagara taluk has reported 209 monkey deaths with 10 monkey KFDV positive. Out of the 1317 pools of Ticks collected, 38 are KFDV positive. In 2019, Hassan has reported 1 human case positive, 2 tick pools positive and 1 monkey positive for KFDV.



Activities Taken Up During the Outbreak

- **Additional Human Resources Deputed**
 - 24*7 Doctors posted to PHC Aralagodu and PHC Kargal
 - 6 teams of Health workers are deputed to conduct surveillance in field and distribution of DMP oil to PHC Aralagodu
 - Vacant posts in VDL Shivamogga and KFD Field stations at Honnavara, Sagara and Belthangadi are filled.
 - Entomologists and other field staff and mobile teams were deputed to Shivamogga
- **Strengthening Surveillance**
 - 1 Mobile Health unit established for surveillance
 - 3 ALS 108 Ambulances stationed at Aralagodu and Kargal PHCs.
 - House to house visit were done by deputed teams.
 - Testing for human samples was being done at VDL Shivamogga, NIV Pune, NIV Field Station Bangalore & MCVR Manipal.
 - Monkey viscera samples and tick pool samples were sent for testing at NIV Pune.
 - Free transport and free treatment were made available in Manipal Hospital, Udupi.
 - Vector surveillance: Entomological teams were deputed to conduct tick surveillance and take up vector control activities.
 - Mist blowers were used in hot spots for vector control and guidelines have been issued for the same.
 - Immediate reporting of Monkey deaths was instructed.
 - Revision of data collection formats at all level and training of medical officers and staff on surveillance strengthening supported by WHO NPSP was done
- **IEC** was done extensively through Miking, pamphlets, gram panchayat meetings, media, health education in school
- **Vaccination:** During this period, endemic districts have been provided with 1,45,280 doses of State Government approved KFD vaccine as per State guidelines
- **DMP oil Distribution:** DMP oil was distributed to people who visit forest advising them to apply before going to forest
- **Trainings & Workshops in Shivamogga and Adjacent Districts**
 - All doctors and Program Officers are trained on clinical management of KFD cases at Shivamogga and adjacent districts.
 - Workshops for health workers at Shivamogga and adjacent districts.

- Interdepartmental workshops and trainings were conducted
- **Establishment of Interdepartmental co-ordination**
 - Activities by Revenue department
 - Regular monitoring by Deputy commissioner and Assistant commissioner
 - Inter departmental co-ordination committee meeting held
 - Help line in GP Aralagodu and GH Sagar was established
 - Activities by Animal Husbandry department
 - Monkey Autopsy and cattle tick control measures were undertaken
 - Activities by Forest department
 - Regular combing and information sharing regarding Monkey deaths were done
 - Activities by Panchayat raj department
 - Miking, Handbill printing and local logistics to create awareness about KFD
 - Activities by Media
 - Awareness generation
- **Situation Monitoring and Supervision**
 - Review meeting held under the Chairmanship of Chief Secretary, Govt. of Karnataka.
 - Video conference held under the chairmanship of Principal Secretary, Health with DC, DHO, Forest, Animal Husbandry departments of 9 high-risk districts.
 - Govt. has constituted a high-level committee headed by Sri. Madan Gopal, Rtd. Additional Chief Secretary and Dr Shivakumar, Rtd. Director, MIMS to enquire about the lapses and to recommend long-term measures for KFD control on 24.01.2019. The committee has visited Shivamogga, Uttara Kannada and Udupi districts.
 - DO letter written by Commissioner, Health to the Director, IAH&VB to increase the capacity of vaccine production and testing for virus in monkey specimens
 - Letter written to NCDC, New Delhi to conduct Susceptibility tests for ticks.
 - State Technical Advisory Committee has revised the current vaccination guidelines and also revised the high-risk criteria to be considered for vaccination

- **Budgetary support for 2019-20**

- Rs. 5 crore budget is allocated to Animal Husbandry department for the year 2019-20 for vaccine production
- Rs. 5 crores is allocated to establish BSL-3 Research laboratory and research and treatment unit at Shivamogga for the year 2019-20.
- Rs. 36.2 lakhs is allotted in NHM budget for KFD surveillance for the year 2019-20

- **Long-Term Plan**

- Vaccination has been an important component of KFD control. A formalin inactivated tissue culture vaccine has been the primary strategy for preventing KFD since 1990. But the vaccine compliance is poor due to multiple dose administration and pain post vaccination due to the formalin component. The vaccine-induced immunity is short lived. A detailed study to find out efficacy of current State Government approved vaccine and development of more potent vaccine.
- To understand the maintenance and transmission dynamics of KFD and its implication in occurrence of KFD outbreaks, risk factors for acquiring KFD infection in humans.
- Establishment of more diagnostic facilities in and around the endemic districts and explore feasibility for development of Rapid Diagnostic test kits for detection of KFD.
- Detailed entomological studies of ticks specifically aimed at developing better vector control and research for enhanced tick surveillance for mapping KFD risk areas and predicting outbreaks

COMPREHENSIVE REPORT ON POST DISASTER DISEASE SURVEILLANCE - KERALA FLOOD 2018

Action Taken by Public Health Division, Directorate of Health Services.

Contributed by Additional Director Public Health, Directorate of Health Services, Kerala

Kerala state had experienced an unusual natural calamity during the month of July-August 2018, affecting almost all districts of the state. The event started with torrential rain in the Alappuzha district during third and fourth week of July, including northern districts of Wayanad, Malappuram and Kozhikode from 8th August 2018, finally progressing to affect the central and southern parts on subsequent days lasting for about 14 days in its worst form.

11 out of 14 districts were worst affected in this disaster with more than 6 lakh people displaced to relief camps.

Major Actions taken by our department were:

1. Incident command center and Control Rooms were set up in Directorate of Health services and all district headquarters. The control room contact numbers were shared with community.
2. State and District Disaster Management system were activated from 9th August 2018 onwards in northern districts and from 14th August 2018 onwards in other districts.
3. State Rapid Response Team convened an emergency meeting to draft guidelines for the control measures for epidemic prone diseases. Representative of Regional Director of Health (RDO-Trivandrum) participated and contributed in formulation of the guidelines.
4. At State Control room, separate cells were designated for logistic management, media management, & data management. Available department staff were asked to provide 24 hr service in these control rooms, with deployment of staff from the non-affected regions. These centers monitored the situation twice daily and reported to state and central government.
5. Collection centers for collection, storage, sorting, and distribution of relief materials and other essential logistics were started in all district headquarters, and in some difficult to reach districts, with decentralized centers at taluk levels.

6. Guidelines for prevention and control of communicable diseases and also for systematic functioning of relief camps were formulated and circulated. A Health inspector/ Multipurpose health worker was entrusted to supervise the health and sanitation part of all relief camps. Local ASHA, AWW and Kudumbasree volunteers and members of VHSNCs were instructed to be involved in full scale in relief camps.
7. Medical officers of local PHCs were instructed to provide and supervise necessary medical aid to flood victims. Medical camps were organized in these camps daily apart from ensuring routine functioning of PHC/Hospitals in the affected areas.
8. Advisories to Health workers, public and NGOs regarding the preventive health aspects were formulated and circulated in both English and Malayalam languages. Focus was given to prevent food borne infection, water borne diseases, Leptospirosis, Snake bites, and any unusual symptoms were to be reported immediately to respective PHCs.
9. State level officers of Health department were deployed for monitoring and supervisory visits to affected districts.
10. When the flood water started receding, steps were initiated for safe return of the victims of this disaster-All damaged houses were planned to be restored in a phased manner, temporary shelters were provided for families with completely damaged houses.
11. Counselling services were arranged for traumatized victims of the tragedy, steps were taken to ensure continuation of case management of NCD cases.
12. Disease surveillance system was strengthened. Daily disease data was collected from the relief camps as well as institutions, as per IDSP case definitions, using the existing surveillance system. This system is also supplemented by inputs from expert external teams from Dept of Public Health, Tamil Nadu and WHO (NPSP).
13. Steps were initiated to clean and super chlorinate all drinking water sources and safe disposal of carcasses as per standard guidelines with help from officers of Animal Husbandry department.

Post flood Cleaning of affected houses/institutions./areas

1. Massive cleaning operation were undertaken in all flooded/damaged houses/areas.
2. All flooded wells were cleaned and chlorinated as per standard guidelines.
3. Residual chlorine of drinking water were monitored and corrective measures taken.
4. All relief workers involved in cleaning and related activities were being given prophylactic doxycycline to prevent Leptospirosis.

5. Additional Human resource in Primary Health centers were provided as per need assessment, in the flood affected Panchayats. One additional staff nurse and 6 Health inspectors were recruited for a period of 30 days and deployed to the needed areas

Post Flood Surveillance for Communicable disease (CD) outbreaks

Anticipating a large scale outbreak of Water borne disease like Typhoid, Acute diarrheal disease, Hepatitis, and Leptospirosis, all possible preventive steps were taken.

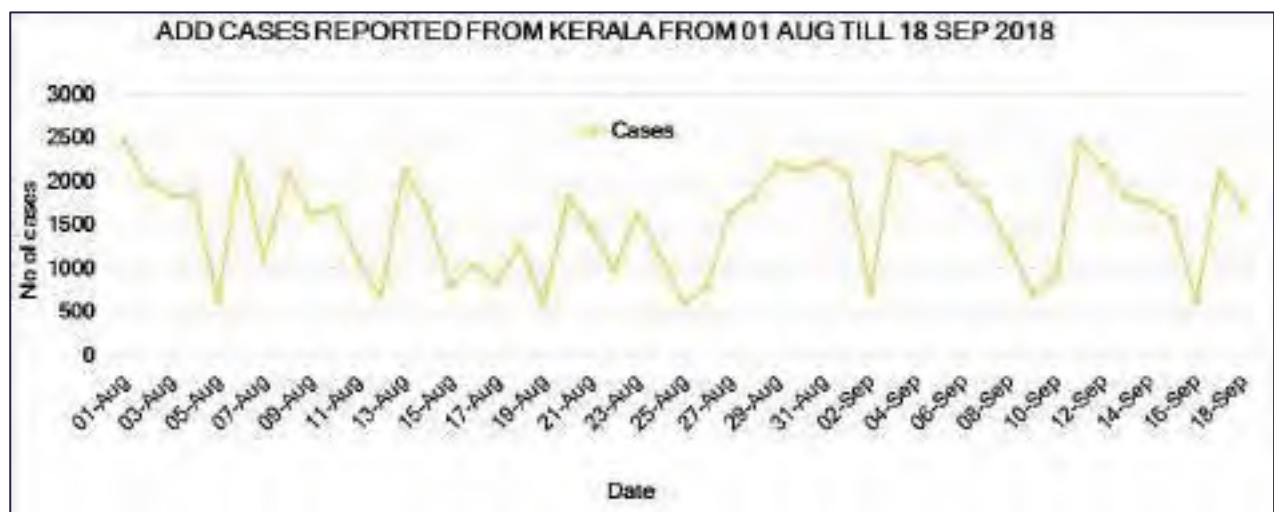
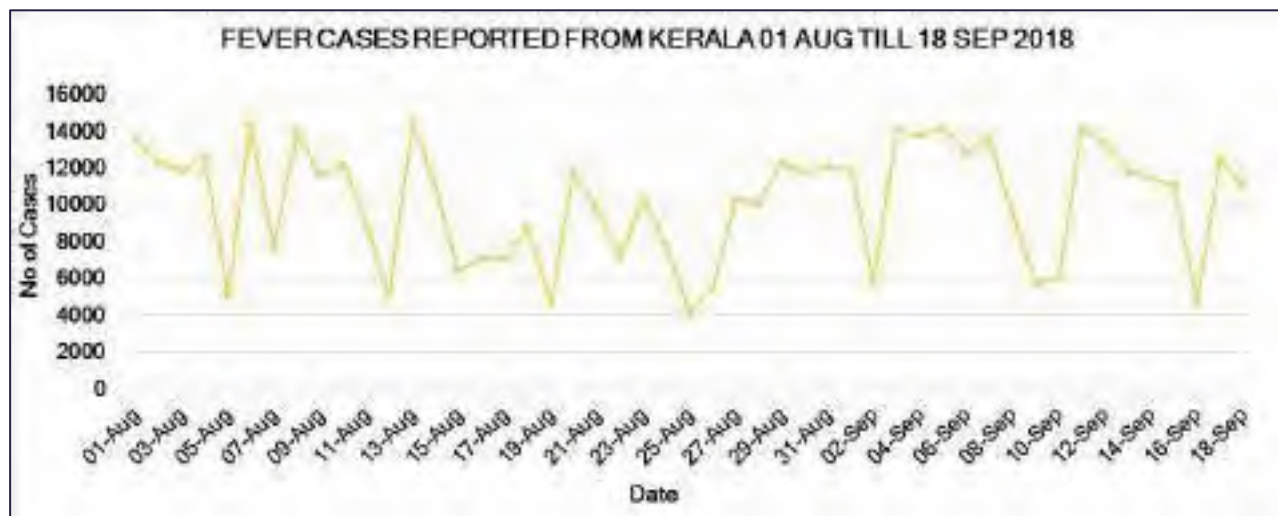
Following major steps were taken:

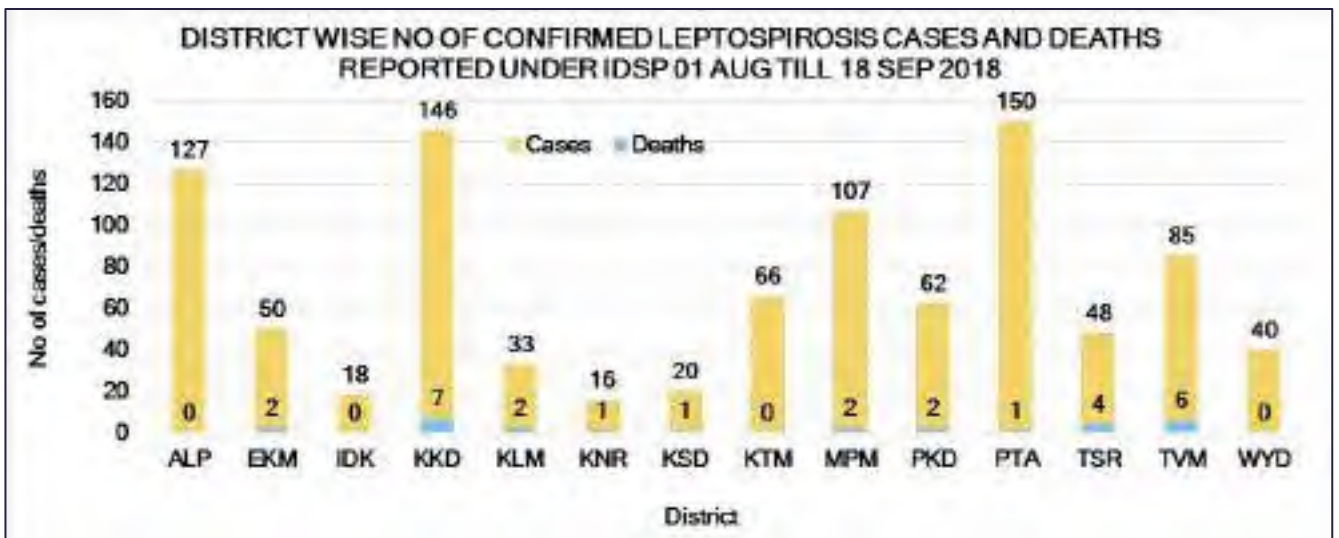
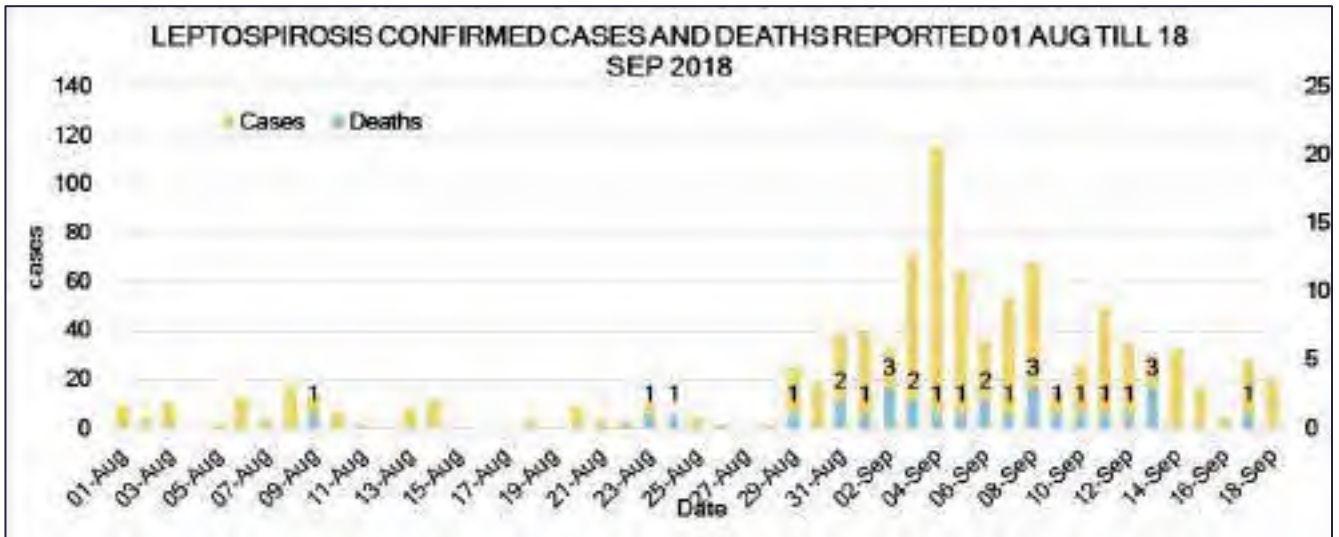
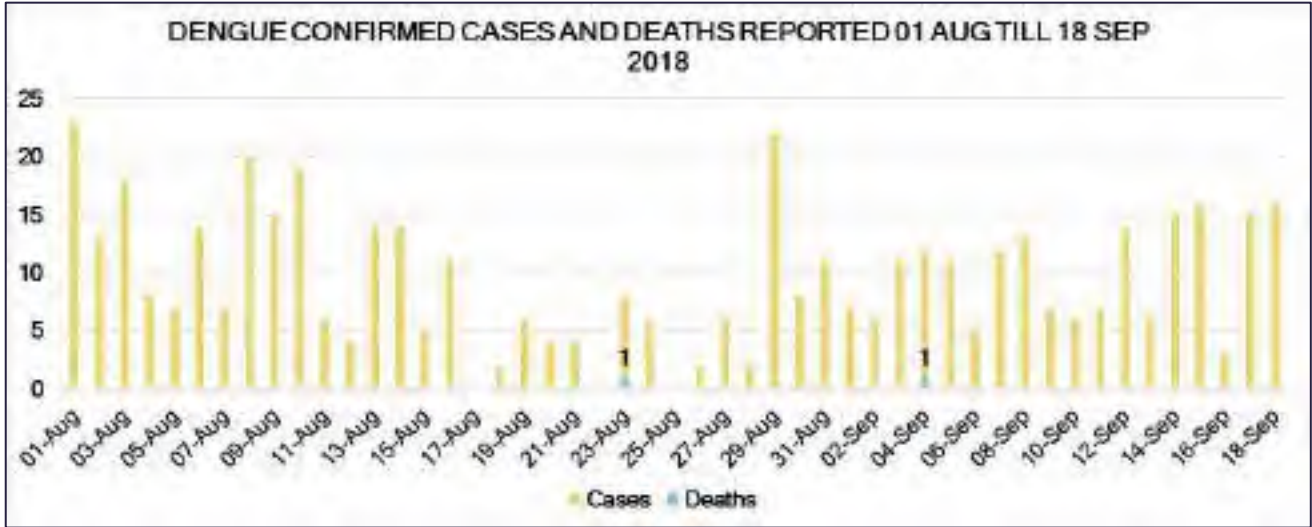
- Surveillance strengthened by engaging WHO deployed surveillance officers, who scanned all the major private hospitals in the State and shared the line list of Communicable diseases daily, which were reconciled at respective District Surveillance unit.
- Daily surveillance data from all the major Medical colleges, both government and private, were scrutinized at district and state surveillance units, and data reconciliation done, for cases as well as deaths due to communicable diseases.
- All the print and visual media in the state were scanned for disease related information during this period, and data related to Communicable diseases and deaths were included into the surveillance data of IDSP.
- Data generated through the recently developed mobile App for capturing CD data were also utilized for arriving at near realistic conclusions.
- Epidemiological analysis of the CD data was done on a daily basis and shared to PH division of Kerala for appropriate decision making.
- A special RRT meeting were convened for strengthening Leptospirosis prevention and control measures including revision of referral protocol.
- Inputs from experts of Departments of Community Medicine, Infectious disease and other research wings were shared with Public health division for appropriate inclusion into the protocols.
- Community awareness programs through various audio visual media like AIR, FM radio, TV Channels and newspapers were carried out by experts to sensitize the community for prevention of epidemics during the post flood days

Post Flood Vector Control Measures

- Zonal Entomology Teams of the state and District Vector control units intensified vector surveillance in all the affected area.
- 10 Units of Entomology experts from Chennai, were deployed to various high risk districts, who carried out vector survey and vector control measures like fogging in high risk areas.
- Intensive source reduction campaign were conducted in all the affected districts focusing on removal of potential mosquito breeding containers.
- Entomology division of PH wing monitored the vector indices of all the districts on a daily basis.
- Logistics for vector control was ensured in all districts

Status Of Communicable Disease





CRIMEAN CONGO HAEMORRHAGIC FEVER (CCHF)

Contributed by: Dr Danish Malek, Epidemiologist IDSP; Dr Dinkar Raval, Deputy Director, Epidemic; Dr G C Patel, Assistant Director, Epidemic

Key facts

- The Crimean-Congo haemorrhagic fever (CCHF) virus causes severe viral haemorrhagic fever outbreaks.
- CCHF outbreaks have a case fatality rate of up to 40%.
- The virus is primarily transmitted to people from ticks and livestock animals. Human-to-human transmission can occur resulting from close contact with the blood, secretions, organs or other bodily fluids of infected persons.
- CCHF is endemic in Africa, the Balkans, the Middle East and Asia, in countries south of the 50th parallel north.
- There is no vaccine available for either people or animals



Brief Introduction about the CCHF Outbreaks in Gujarat

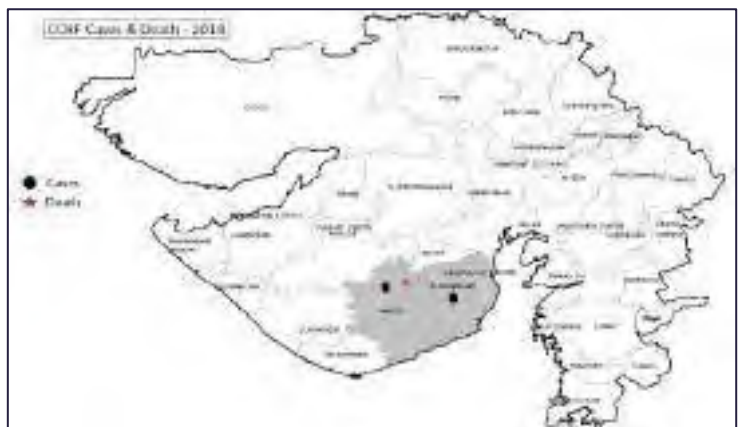
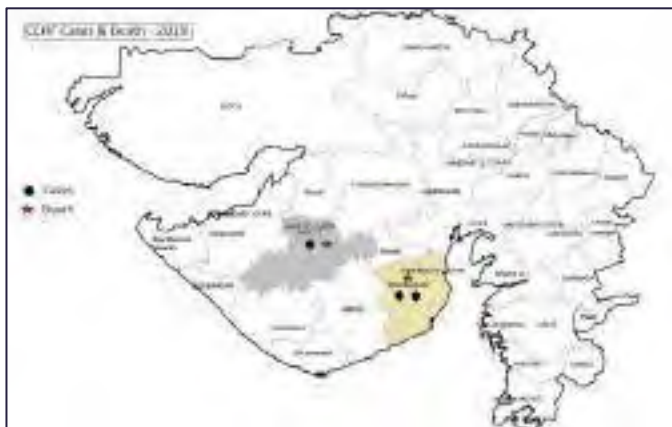
In India, the first confirmed case of CCHF was reported during a nosocomial (Infections caught in hospitals) outbreak in Ahmedabad, Gujarat, in January 2011. The case belonged to Village Kolat of District Ahmedabad. Subsequently, outbreaks has been reported from different districts of Gujarat every year. Cases & outbreaks has been documented from districts of Gujarat and of Rajasthan (Sirohi, Jodhpur, and Chittorgarh). In 2015, a CCHF case was also reported from Uttar Pradesh. An imported case of CCHF was reported from Thrissur District of Kerala in 2018. Annually, 50 - 60 cases has been reported from bordering country Pakistan.

Ticks and animals has been identified as the main source of the outbreak and other sporadic outbreaks detected in 2015, 2016 and 2017; CCHF outbreak in various parts of Kutch were reported from 2013 to 2017 (Table below).

- Maximum CCHF cases have been reported in Kutchh, Amreli, Rajkot and Bhavnagar districts (Table below)
- Over all CFR% in last 7 years is 52.3% (65 cases & 34 deaths)

- Maximum cases reported are of >18 years of age group.
- It has been found that cases reported positive are been engaged with animal trading or handling them.
- 126 samples (along with close contacts) have been collected in year 2019 so far, out of which 3 are positive.

District wise cumulative cases and deaths of CCHF from 2013 to 2019 (till April)																
District	2013		2014		2015		2016		2017		2018		2019		Total	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
Kutch	3	3	2	2	11	7	5	3	2	1					23	16
Amreli	12	3	1	1	2	0					1	1			16	5
Rajkot							4	2	2	1			1	1	7	4
Bhavnagar							1	1			1		2	1	4	2
Ahmedabad							2	1							2	1
Sabarkantha			1	0					1						2	0
Patan	2	1													2	1
Anand			1	1			1	1							2	2
Bharuch							1	0	1	1					2	1
Morbi					1	0									1	0
Surendranagar	1	1													1	1
Arvalli					1	0									1	0
Jamnagar					1	1									1	1
Botad							1	0							1	0
Total	18	8	5	4	16	8	15	8	6	3	2	1	3	2	65	34
CFR %	44.4		80		50		53.3		50		50		66.7		52.3	



Action Taken

- Active surveillance is conducted in 0 to 5 km radius of index case to find out any suspected case.
- Entomological survey for hard tick by animal husbandry dept.
- De-ticking of animals is done by animal husbandry department in collaboration with health workers. Intensive tick control measures are taken by spraying acaricide drug on all animals in affected and neighborhood villages
- Contacts of positive are observed for 10 days and if any similar symptoms observed and treated as per guidelines.
- Ensuring availability of Ribavirin at Hospitals.
- Quarterly Inter Departmental meeting is held with experts from Animal Husbandry and Veterinary department where current disease status is reviewed and further action plan of prevention and control of communicable diseases is chalked out.
- At district level "Sanchari Rog Meeting" is held under chairmanship of District Collector.
- IEC regarding health education about causation, transmission and prevention of disease.
- CME with private doctors with help of IMA. Workshops organized for sensitization of private doctors.
- Health care staff in the hospitals are educated with emphasis on protective measures.
- Guidelines on Management of CCHF has been developed at State level.
- Sero surveillance of human samples among affected and non affected districts of state done in collaboration with NIV, Pune.

GLIMPSE OF ACTIVITIES BY CSU/SSUs/DSUs

IHIP TRAINING OF TRAINERS (STATE OFFICIALS) WORKSHOP FROM 23-25 JUNE 2018 AT DELHI



STATE LEVEL IHIP TRAINING OF TRAINERS WORKSHOP FROM 8 TO 10 JULY 2018 AT SHIMLA HIMACHAL PRADESH



SCRUB TYPHUS OUTBREAK INVESTIGATION IN JULY 2018 AT LUNGLEI DISTRICT MIZORAM



IHIP TRAINING OF TRAINERS (NCDC OFFICIALS) WORKSHOP FROM 03 JULY 2018 AT NCDC DELHI



STATE LEVEL IHIP TRAINING OF TRAINERS WORKSHOP FROM 16-18 JULY 2018 AT ANDHRA PRADESH



REGIONAL REVIEW OF NORTH EASTERN STATES ON 9-10 OCTOBER 2018 AT GUWAHATI ASSAM



TRAINING OF DATA MANAGERS &
EPIDEMIOLOGISTS FROM STATES FROM 23-
26 OCTOBER 2018



REGIONAL REVIEW OF WESTERN STATES
ON 20 & 21 DECEMBER 2018 AT
AHMEDABAD GUJARAT



STATE LEVEL TRAINING OF DATA
MANAGERS ON 14-15 MARCH 2019 AT
JAIPUR RAJASTHAN



CHICKENPOX OUTBREAK
INVESTIGATION AT THE KARACHGAM
VILLAGE, DADRA & NAGAR HAVELI



REGIONAL REVIEW OF NORTHERN
STATES HELD ON 31 JANUARY & 1
FEBRUARY 2019 AT CHANDIGARH,
PUNJAB



REGIONAL REVIEW OF SOUTHERN
STATES HELD ON 28 & 29 MARCH 2019
AT BENGALURU, KARNATAKA



Acknowledgement

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