

# Disease Control Programmes (NHM)

## 5.1 INTRODUCTION

Several National Health Programmes such as the National Vector Borne Disease Control Programme, National Leprosy Eradication Programme, Revised National TB Control Programme, National Blindness Control Programme and National Iodine Deficiency Disorder Control Programme have come under the umbrella of National Health Mission (NHM).

## 5.2 NATIONAL VECTOR BORNE DISEASE CONTROL PROGRAMME (NVBDCP)

The National Vector Borne Disease Control Programme (NVBDCP) is for prevention and control of vector borne diseases viz. Malaria, Japanese Encephalitis (JE), Dengue, Chikungunya, Kala-azar and Lymphatic Filariasis. Out of these six diseases, three diseases namely Kala-azar, Lymphatic Filariasis and Malaria have been targeted for elimination. The States are responsible for the implementation of programme, while the Directorate of NVBDCP, Delhi provides technical assistance, policies and assistance to the States in the form of cash & commodity, as per approved pattern. Malaria, Filaria, Japanese Encephalitis, Dengue and Chikungunya are transmitted by mosquitoes whereas Kala-azar is transmitted by sand-flies. The transmission of vector borne diseases depends on prevalence of infective vectors and human-vector contact, which is further influenced by various factors such as climate, sleeping habits of people, density and biting of vectors etc.

The general strategy for prevention and control of

vector borne diseases under NVBDCP is described below:

- (i) **Integrated Vector Management** including Indoor Residual Spraying (IRS) in selected high risk areas, Long Lasting Insecticidal Nets (LLINs), use of larvivorous fish, anti-larval measures in urban areas including bio-larvicides and minor environmental engineering including source reduction.
- (ii) **Disease Management** including early case detection with active, passive and sentinel surveillance and complete effective treatment, strengthening of referral services, epidemic preparedness and rapid response.
- (iii) **Supportive Interventions** including Behaviour Change Communication (BCC), Inter-sectoral Convergence, Human Resource Development through capacity building.
- (iv) **Vaccination** only against J.E.
- (v) **Annual Mass Drugs Administration** (only against Lymphatic Filariasis)

### 5.2.1 Malaria

Malaria is a potentially life threatening parasitic disease caused by parasites known as Plasmodium vivax (P.vivax), Plasmodium falciparum (P.falciparum), Plasmodium malariae (P.malariae) and Plasmodium ovale (P.ovale). It is transmitted by the infective bite of Anopheles mosquito. There are two types of parasites of human malaria, Plasmodium vivax, P. falciparum, which are commonly reported from India. P.falciparum is the



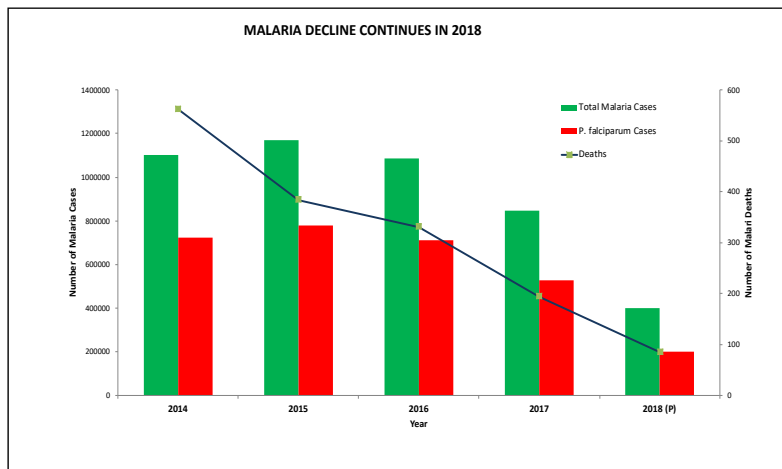
*World Malaria Day 2018 at Nirman Bhavan on 25.04.2018*

cause for complications and leading to death if not treated immediately.

### **Epidemiological Situation**

India has made considerable progress in reducing its malaria burden. India achieved a reduction of 59% in malaria morbidity and 90% in malaria mortality between 2000 and 2018, thereby achieving Goal 6 of the Millennium Development Goals (50-75% decrease in case incidence between 2000 and 2018). Malaria cases have declined significantly by 49.09% and deaths due to malaria have been reduced by 50.51% in 2018 as compared to 2017.

Malaria elimination efforts were initiated in 2015 and were intensified after the launch of National Framework for Malaria Elimination (NFME) in 2016. If we compare the malaria decline in 2015 and 2017 there was decline of nearly 39.3 percent in malaria cases and 49.5 percent in malaria deaths. It may be mentioned here that in the year 2018, a further steeper decline is evident as compared to 2017. The total number of malaria cases reported in 2018 were 4,29,928 (P) in comparison to 8,44,558 cases reported in 2017 indicating a decline of 49.09% in comparison to the corresponding period of 2017.



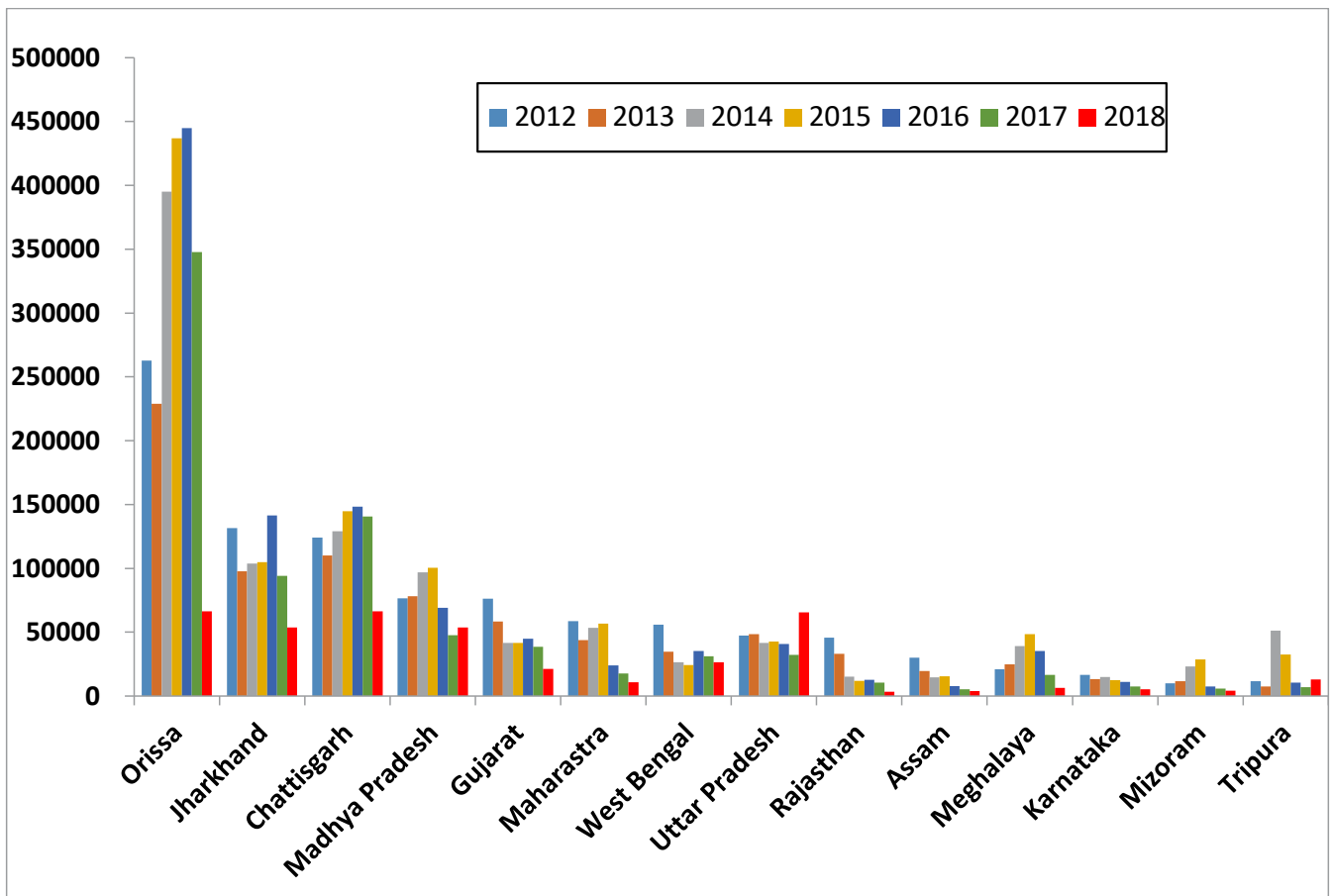
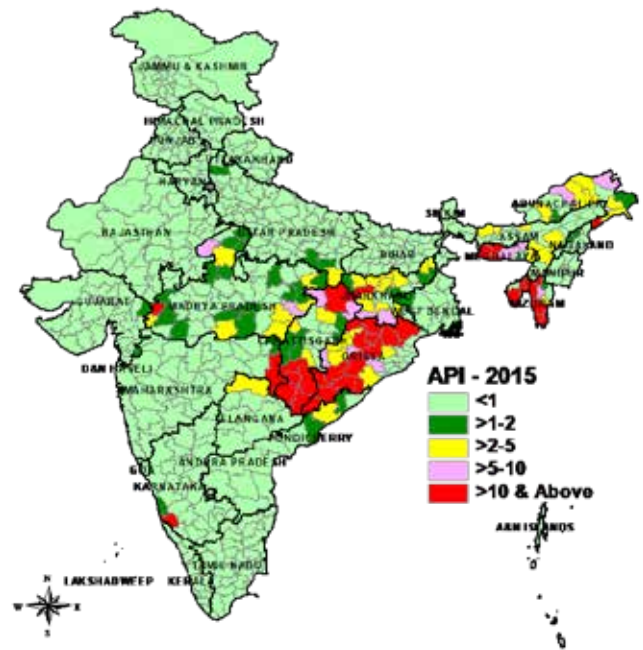
Malaria deaths in the country have declined by 51% in 2018 as compared to 2017. In 12 States there is decline in malaria deaths whereas 19 States sustained Zero malaria deaths status.

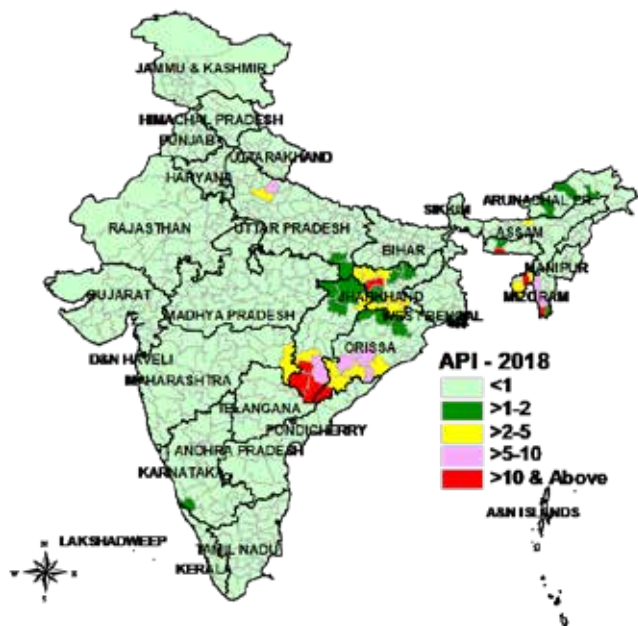
The intensity of malaria transmission has decreased as is evident in the maps given based on API (Annual Parasitic Incidence):

Recently launched World Malaria Report (WMR) 2018 by WHO, which gives the estimated cases for malaria across the world, based on mathematical projections, indicates that India is the only high endemic country which has reported a decline by 24 % in 2017 as compared to 2016. WMR has attributed India's success to rejuvenated political commitment, strengthened technical leadership, which focused on prioritizing the right mix of vector control measures, and increased levels of domestic funding to back efforts.

**Trends of Malaria in Indian States**

Malaria has declined in the high burden States of India i.e. NE States, Odisha, Chhattisgarh, Madhya Pradesh and Jharkhand.





### 5.2.2 Kala Azar

Kala-azar or Visceral Leishmaniasis (VL) is a complex disease, caused by the parasite *Leishmania donovani* and is transmitted by sandfly *Phlebotomine argentipus*. In India, Kala-azar cases are mainly reported from 54 districts of 4 states i.e. Bihar (33 districts), West Bengal (11 districts), Uttar Pradesh (6 districts) and Jharkhand (4 districts).

Government of India has targeted Kala-azar elimination with a target to reduce the annual KA case incidence to <1 per 10,000 population at block level.

In order to achieve this goal, the National Kala-azar Elimination Programme has outlined following strategies-

#### Strategy

- Early diagnosis & complete treatment (EDCT)
- Integrated Vector Management including Indoor residual spraying (IRS)
- Advocacy, Communication for Behavioural Impact and Inter-sectoral convergence

- Capacity Building
- Supervision, Monitoring and Evaluation

#### Achievements in 2018

- 24% reduction in KA cases in 2018 compared to 2017.
- 37.2% reduction in Post Kala-Azar Dermal Leishmaniasis (PKDL) in 2018 compared to 2017.
- At the end of Dec 2018, 92 % Kala-Azar endemic blocks have achieved the elimination target of <1 KA case per 10,000 population at block level.
- The first round of IRS was conducted in Kala-Azar affected villages with a >85% coverage.
- As per Global Health Observatory (GHO) data maintained by WHO, based on VL data of 2017, the contribution of India in Global VL burden has decreased from 51.6 % in 2011 to 26% in 2017.

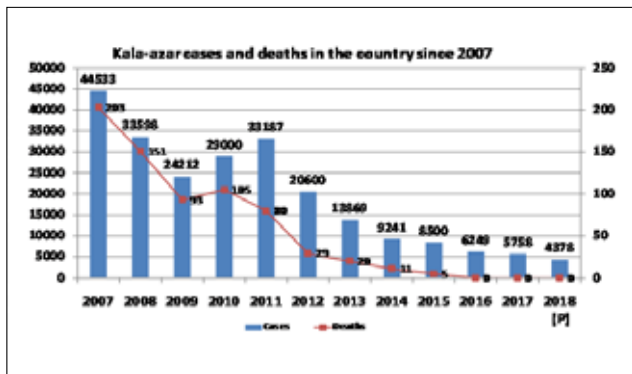
#### New Initiative

- Implementation of Kala-Azar Management Information System (KA-MIS) extended to Uttar Pradesh.
- GoI raised one time incentive for new PKDL cases from Rs.2000/- to Rs. 4000/- and incentive of ASHA from Rs.300/- to Rs. 500/- per notified case of Kala-azar during 5<sup>th</sup> Mission Steering Group Meeting.
- GoI made provision of pucca houses in Kala-Azar affected villages on priority basis, using saturation approach under Pradhan Mantri Awas Yojna- Gramin (PMAY-G).
- To review the Kala-Azar elimination activity, an Internal Technical Committee (ITC) was formed by Director, NVBDCP. 4 Meetings of ITC were held in 2018.
- Community Based Resource Person (CBRP) activity in 200 high endemic Kala-



Azar villages of Bihar and Jharkhand with stakeholders is a New Concept.

- GoI has approved sub-national level awards at block, district and State levels for Kala-Azar elimination. This shall create a healthy competition among the KA endemic states and motivate administration to prioritize Kala-Azar elimination activities.



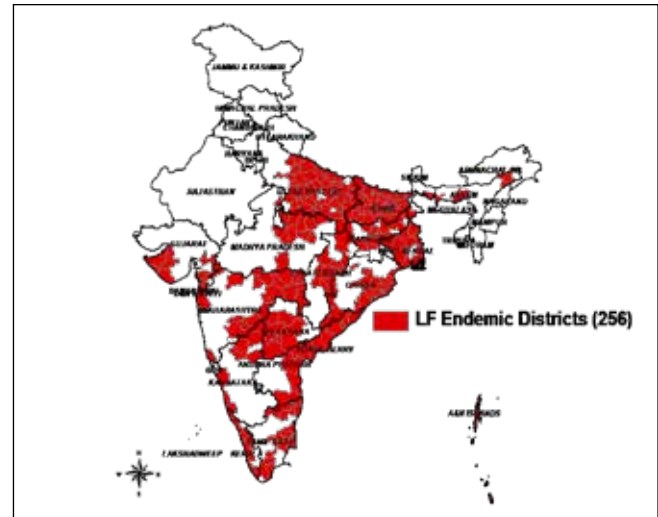
### 5.2.3 Lymphatic Filariasis

Filariasis is the common term for a group of diseases caused by parasitic nematodes belonging to super family Filarioidea. The adult worms of these parasites live in the lymphatic system called as Lymphatic Filariasis (LF). The three nematode parasites causing LF in human are *Wuchereria bancrofti*, *Brugia malayi* and *Brugia timori*, of these, only *Wuchereria bancrofti* and *Brugia malayi* are found in India. In mainland India, *Wuchereria bancrofti*, transmitted by the ubiquitous vector, *Culex quinquefasciatus*, has been the predominant infection parasite contributing to 99.4% of the problem in the country. The infection is prevalent in both urban and rural areas. The vector species breeds preferably in dirty and polluted water.

Lymphatic Filariasis (LF), commonly known as elephantiasis is a disfiguring, disabling disease, usually acquired in childhood. In the early stages, there are no symptoms. The long term physical consequences are painful, swollen limbs (lymphoedema or elephantiasis). Normal daily activities become difficult due to frequent infections.

### Disease Burden

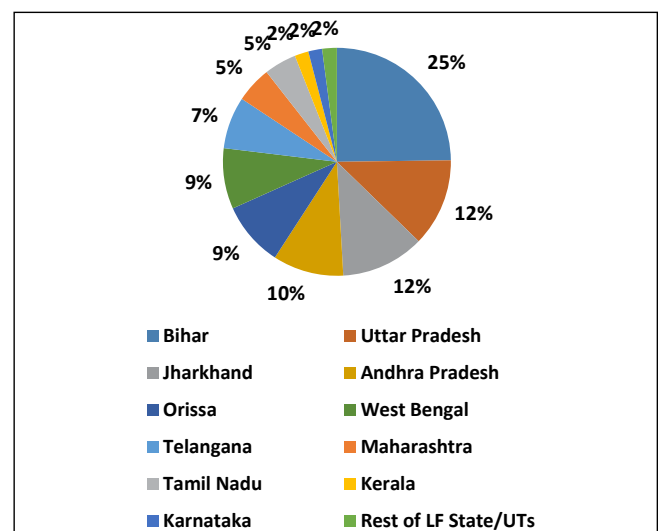
The disease is endemic in 256 districts across 21 States/UTs (16 States & 5 UTs). The population at risk is about 630 million.



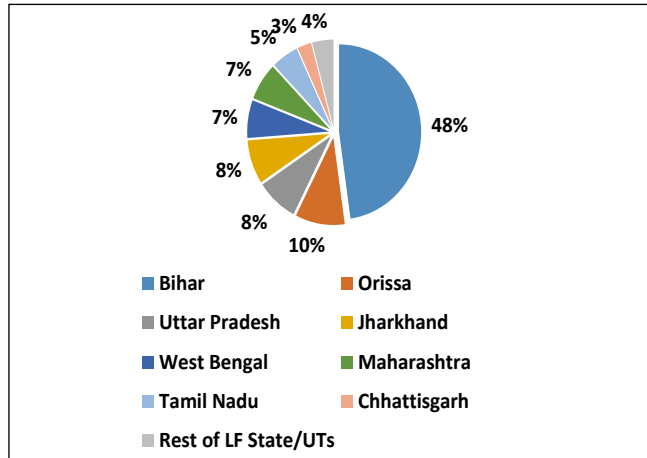
### State-wise Situation of Lymphatic Filariasis (2018)

As on 2018, a total of 12,98,233 Lymphatic Filariasis cases were reported from 16 States and 5 UTs, wherein Lymphoedema and Hydrocele cases are 9,03,835 and 3,94,398 respectively. Till December 2018, a total of 1,48,736 hydrocelectomy operation were reported under morbidity management from 16 States and 5 UTs.

### Lymphatic Filariasis: Lymphoedema cases in India (2018)



## Lymphatic Filariasis: Hydrocele cases in India (2018)



## Strategy for Elimination of Lymphatic Filariasis

The twin pillars of LF elimination strategy

- i) **Transmission control** – Interruption of transmission through annual Mass Drug Administration. To prevent the occurrence of new infection and disease by administration of annual single dose of anti-filarial drug i.e., DEC and/or co-administration of DEC+Albendazole.



- ii) **Disability Prevention and Management**– for those individuals who already have the disease. The home & hospital based management for lymphoedema and hydrocele is being provided.



## Achievements (2018)

- Total Lymphatic Filariasis endemic districts: 256
- Districts completed 5 Rounds of MDA (Mass Drug Administration): 256
- Districts cleared 1<sup>st</sup> Transmission Assessment Survey (TAS) and Stopped MDA: 95
- Districts cleared 2<sup>nd</sup> Transmission Assessment Survey (TAS): 76
- Districts cleared 3<sup>rd</sup> Transmission Assessment Survey (TAS): 20
- Dissemination of Accelerated Plan for Elimination of Lymphatic Filariasis and Programme Progress Review; 23<sup>rd</sup> to 24<sup>th</sup> October, 2018 at New Delhi
- Triple Drug Therapy (IDA): The MoH&FW has approved the IDA implementation programme in selective five districts i.e. Arwal (Bihar), Simdega (Jharkhand), Varanasi (Uttar Pradesh), Nagpur (Maharashtra) and Yadgir (Karnataka). Triple Drug Therapy (IDA) has been launched successfully in Arwal district of Bihar on 20<sup>th</sup> December, 2018, Simdega of

Jharkhand as 10<sup>th</sup> January, 2019, Nagpur of Maharashtra on 20.01.2019 and Varanasi of Uttar Pradesh on 20<sup>th</sup> February, 2019. Launch at Yadgir (Karnataka) will take place later in 2019.

### IEC/BCC Activities

Intensive social mobilization/IEC/BCC has been carried out by various States/UTs involving political/opinion leaders, decision makers, local leaders and community during MDA rounds.

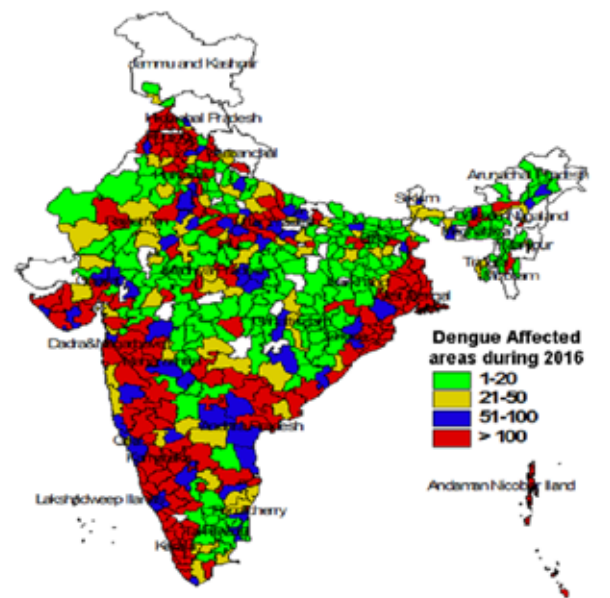


### 5.2.4 Dengue

Dengue is a fast spreading outbreak prone arboviral disease. Dengue Fever is transmitted by *Aedes* mosquito which is a day biting mosquito and prefers to rest in hard to find dark areas inside the houses. *Aedes aegypti* is the principal vector; however, at present *Ae. albopictus*, has also been reported to play a role in Southern and NE states. There is no drug available to cure the dengue infection.

### Disease burden

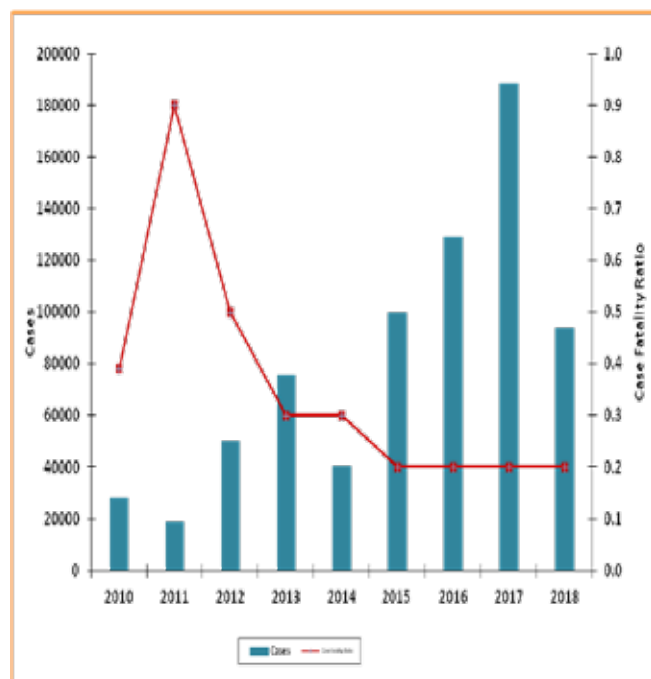
Dengue is endemic in 29 States and 6 UTs (except Lakshadweep). Recurring outbreaks of Dengue have been reported from Andhra Pradesh,



Assam, Delhi, Goa, Haryana, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Puducherry, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.

Every year during the period of July-November, there is an upsurge in the cases of Dengue in northern parts of the country. However, in the Southern and Western parts of the country, the disease has become perennial.

During 2017, a total of 1,88,401 cases and 325 deaths were reported from 29 States and 6 UTs, whereas, in 2018, a total of 1,01,192 cases and 172 deaths were reported from 29 States and 6 UTs. Maximum cases were reported from Punjab (14980) followed by Maharashtra (11011), Rajasthan (9587), Gujarat (7579), Delhi (7136). Maximum deaths are reported from Maharashtra (55), Kerala (32) followed by Tamil Nadu (13), Chhattisgarh (10), Rajasthan (10). Case Fatality Rate (CFR, deaths per 100 cases) which was 3.3% in 1996 has come down to 0.3% in 2014, 0.2% in 2015, 2016, 2017 and 2018 because of better management of Dengue cases.



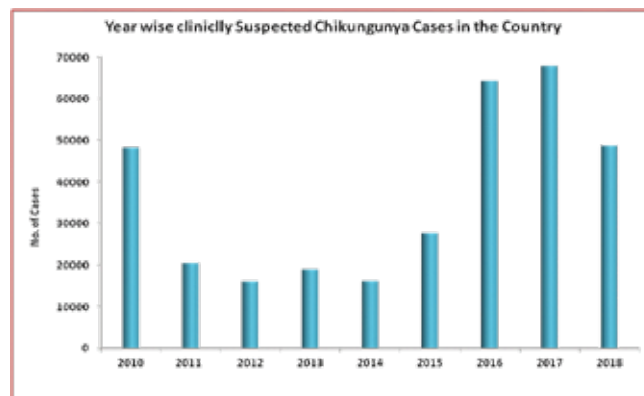
*The State-wise Dengue situation during 2017 and 2018 (till 31<sup>st</sup> December)*

## 5.2.5 Chikungunya

Chikungunya is a debilitating viral illness caused by Chikungunya virus. The disease re-emerged in the country after a gap of almost three decades. This disease is also transmitted by *Aedes* mosquito, both *Ae. aegypti* and *Ae. albopictus* can transmit the disease. Symptoms of Chikungunya fever are most often clinically indistinguishable from those observed in dengue fever. It is characterized by fever with severe joint pain (arthralgia) and rash. Joint pains sometimes persist for a long time even after the disease is cured. There is neither any vaccine nor drugs available to cure the Chikungunya and the cases are managed symptomatically.

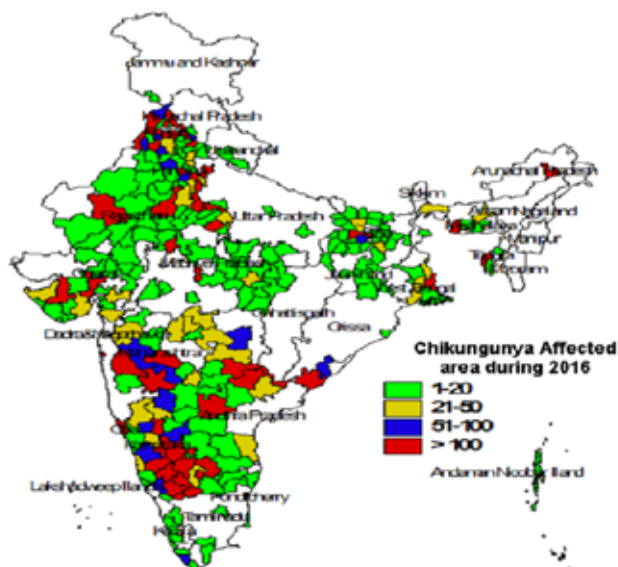
### Disease burden

After re-emergence of Chikungunya in 2006, the cases of Clinically Suspected Chikungunya were reported every year but gradually declined till 2014. However, due to the report of increased numbers of cases by few States, the disease shows an upward trend in 2015 (Karnataka) and 2016 (Delhi and nearby States). Currently, Chikungunya is endemic in 26 States and 6 UTs. During 2017 a total of 67769 suspected Chikungunya cases were reported from 28 States, whereas in 2018 (till 31<sup>st</sup> December), a total no. of 57813 clinically suspected Chikungunya cases were reported from 29 States/UTs. The maximum cases were reported from Karnataka (20411) followed by Gujarat (10601), Maharashtra (9884), Madhya Pradesh (3211) and Puducherry (2876).



*Chikungunya situation during 2017 and 2018 (till 31<sup>st</sup> December)*





### Activities carried out by Government of India in 2018

During 2018, for prevention and control of Dengue and Chikungunya in the Country following activities were undertaken:

- **Dengue notifiable disease:** States have been requested to declare Dengue as notifiable disease by MOHFW vide letter No.7-165/2016/NVBDCP/DEN dated 9<sup>th</sup> June, 2016 and the same has been uploaded on the NVBDCP website for taking action accordingly by all the States and UT's. Dengue is notifiable at present in 23 States (Andhra Pradesh, Chandigarh, D&N Haveli, Goa, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Odisha, Punjab, Puducherry, Rajasthan, Sikkim, Tripura, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal).

#### • **Diagnosis**

##### **Strengthening of diagnostic facilities**

For augmenting diagnostic facilities, numbers of Sentinel Surveillance Hospitals (SSHs) with laboratory support has been increased to 646 across the country in 2018 from 110 in 2007 and linked

with 16 Apex Referral laboratories (ARLs) with advanced diagnostic facilities for back up support for Dengue and Chikungunya.

**Kit supply:** IgM test kits are provided to these institutes through National Institute of Virology, Pune. Cost is borne by NVBDCP. In 2018 (till 31<sup>st</sup> December), a total no. of 8500 Dengue (1 kit=96 tests) and 2174 Chikungunya kits were provided by GoI to the SSHs and ARLs across the country.

ELISA based NS1 test for early detection of cases from 1<sup>st</sup> day of disease, is a decentralized item, for which funds are provided to the States under PIP for procurement as per the technical guidelines provided by NVBDCP.

**Funding to SSHs and ARLs:** Annual Contingency grants to each SSH (@ Rs. 1.00 Lakh) and ARL (@ Rs. 3.00 Lakhs) is provided through State to meet the operational costs.

#### • **IEC/BCC**

Focused IEC/BCC activities were carried out to generate awareness of the community:

- **Digital Media** campaign through CHI-Video platform (Facebook, YouTube, Hotstar), Mobile platform (SMS and Out bound dialer), Twitter messages & Website banners.
- **Audio Visual** campaign through All India Radio from 22.11.2018 & DAVP (FM Channels, Community radio & Satellite TV channels) for 30 days and on Doordarshan from 26.11.2018.
- **Social media-** Twitter and SMS messages on the webpage of Ministry.
- **Radio Journalists' Workshop on Health "Airwaves on Health"** - for effective involvement of Radio Jockeys to disseminate messages on various programmes including Dengue and Chikungunya was organized jointly by MoHFW and UNICEF on 3rd July at Delhi.



Secretary (HFW) inaugurated the National Dengue Day on 16<sup>th</sup> May observed at AIIMS, Delhi

### 5.2.6 Japanese Encephalitis

Japanese Encephalitis (JE) is an outbreak prone arbo-viral disease transmitted by infected *Culex vishnui* group of mosquitoes which primarily breeds in rice fields in rural areas. JE is reported under Acute Encephalitis Syndrome (AES) which is characterized by rapid onset of high grade fever, headache, neck stiffness, disorientation, coma, seizures, and ultimately death. The other causes of AES may be wide variety of viruses, bacteria, protozoa, etc. Safe and effective vaccines are available to prevent JE.

**Epidemiological Situation:** JE is endemic in 271 districts of 22 states and every year the disease is spreading to newer districts. More than 70% of disease burden is contributed by Assam, Bihar,

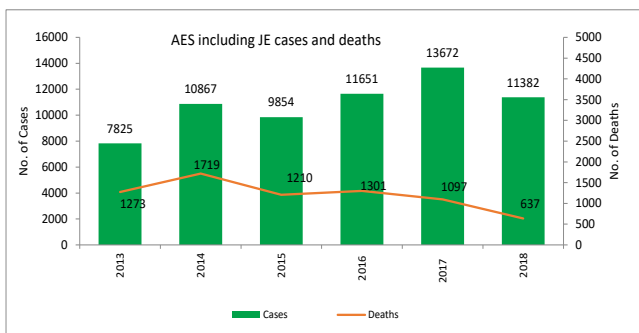
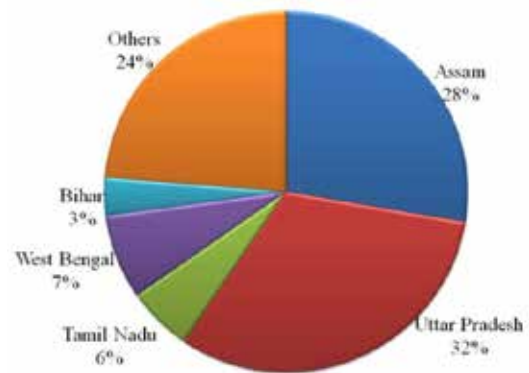
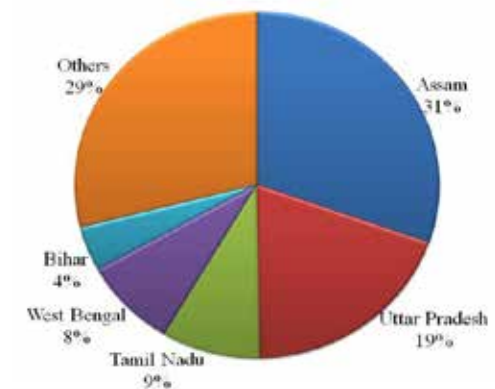


Fig: JE and AES cases since 2013

2017



2018



Graph showing JE case burden in different States in 2017 & 2018

Tamil Nadu, Uttar Pradesh and West Bengal. High case fatality and disability are major concerns associated with the JE.

### Achievements

#### JE Vaccination

Out of six vector borne diseases, JE is the only disease against which vaccination is available. This is most effective preventive tool available for JE. Two doses of SA-14-14-2 live attenuated JE vaccines are recommended under routine immunization.

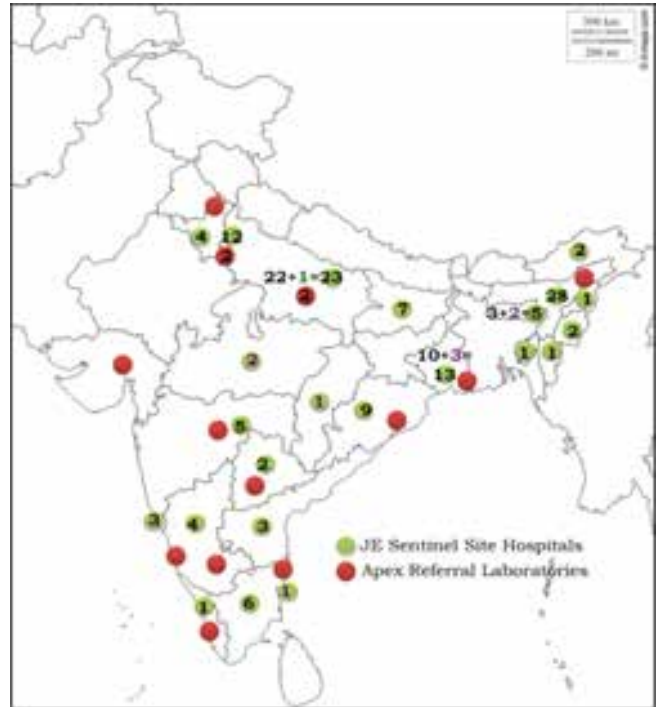
- 234 JE endemic districts of 21 states covered under JE vaccination campaign
- 37 new districts identified in 2018 for JE vaccination campaign in children 1-15 Yrs
- 31 districts in 3 States i.e. Assam, Uttar Pradesh & West Bengal, in 2018 have been covered for adult vaccination



#### Strengthening of Diagnostic Services

JE test kit (MAC ELISA) supplied free of cost to the endemic states. Following achievements have been made in this area:

- 139 JE Sentinel Sites
- 15 Apex Laboratories
- 656 JE IgM Mc ELISA Kits Supplied in 2018



#### Strengthening of Critical Care services

The intervention resulted in 42% decline in case fatality rate in AES/JE cases from 18.6% in 2013 to 10.8% in 2018.

- **Early Referral of AES/JE cases:** To strengthen early referral services, provisions have been made to incentivize ASHA with Rs.300/- case for the referral of AES/JE cases to the higher center.
- **Establishment of Pediatric ICUs (PICUs)**  
31 PICUs have been made functional in identified districts.







### **Strengthening of rehabilitative services; Establishment of Physical Medicine & Rehabilitation (PMR)**

Funds have been provided for establishment of identified 10 Physical Medicine & Rehabilitation (PMR) Department in identified 10 Medical Colleges of five high burdened States. Presently, 3 PMR Departments are functional (1 in Tamil Nadu and 2 in Uttar Pradesh).

## **5.3 NATIONAL LEPROSY ERADICATION PROGRAMME (NLEP)**

### **INTRODUCTION**

National Leprosy Eradication Programme (NLEP), India achieved elimination of leprosy as a public health problem, defined as less than 1 case per 10,000 populations, at the National level in 2005. Afterwards the programme was subsumed under the aegis of NRHM. Through situational analysis of health indicators of NLEP, it was observed that trend of two important indicators of Program i.e. Annual New Case Detection Rate (ANCDR) and Prevalence Rate (PR) remained almost static since 2005 – 2006 and Grade II disability (G2D) rate increased from 3015 (1.87%) in 2005-06 to 5852 (4.60%) in 2015-16, which indicated that a large number of undetected cases were still there in the community, and that the transmission of the disease agent continued.

In view of the above mentioned trend, in addition to the routine activities, several innovations were introduced from 2016 onwards in a phased manner

to address the issues being faced by the programme. Theme wise list of innovations introduced is as below:

- I. **Enhanced active & early case detection:** Three pronged strategy i.e., i) Leprosy Case Detection Campaign (LCDC) (specific for high endemic districts) ii) Focussed Leprosy Campaign (for hot spots i.e., rural and urban areas where ever G2D is detected in low endemic districts) iii) Special plan for case detection in hard to reach areas.
- II. **Enhanced early reporting of cases:** i) Sparsh Leprosy Awareness Campaign (SLAC) ii) ASHA based Surveillance for Leprosy Suspects (ABSULS)
- III. **Prevention of leprosy amongst contacts:** i) Post Exposure chemoprophylaxis administration, ii) Immunoprophylaxis using vaccine Mycobacterium Indicus Pranii (MIP) (project mode in high endemic districts) iii) Post Exposure Prophylaxis (PEP)++ (project mode)
- IV. **Overall strengthening of the programme with special emphasis on monitoring & feedback:** i) Nikusht, an online reporting system with Patient tracking mechanism, ii) Grade II disability case investigation iii) Publication of NLEP Newsletter quarterly iv) Setting up of drug resistance surveillance network for Leprosy in India, v) Mathematical modelling under NLEP vi) National trainings.

In addition, various services are being provided under the programme for Disability Prevention and Medical Rehabilitation (DPMR) i.e., reaction management, provision of MCR footwear, Aids & Appliances, referral services for management of cases and reconstructive surgery at District Hospitals and Medical Colleges/Central Leprosy Institutions.

These innovations have given the much needed



impetus to the programme. As a result, the rising trend of Grade II disability (G2D) has now been reversed. G2D per million population which was 4.48 as on 31<sup>st</sup> March, 2015 has now decreased to less than 3 as on 31<sup>st</sup> March, 2019, against the target of <1 case of G2D/ million population, given by WHO Global Leprosy Strategy, 2016 - 2020.

## EPIDEMIOLOGICAL STATUS

### Status in the Country

The year 2017-18 started with 0.88 lakh leprosy cases on record as on 1<sup>st</sup> April, 2017, with Prevalence Rate (PR) 0.67/10,000 population. Till 31<sup>st</sup> March, 2018, 29 States/ UTs had attained the level of leprosy elimination i.e., PR <1 case of leprosy/10,000 population and 572 districts (81.13%) out of total 705 districts also achieved elimination level.

Based on the reports received from all the States and UTs for the year of 2017-18, leprosy situation in the country is as below:

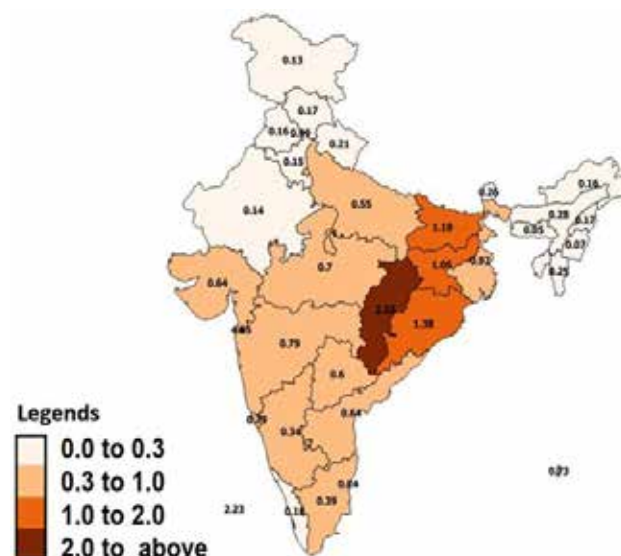
- During year 2017-2018, the country reported 1,26,164 new cases with Annual New Case Detection Rate (ANCDR) of 9.27 per 1,00,000 population, as against 1,35,485 cases in 2016-17.
- A total of 90,709 leprosy cases are on record as on 1<sup>st</sup> April, 2018, giving a Prevalence Rate (PR) of 0.67 per 10,000 population, as against 88,199 cases as on 1<sup>st</sup> April, 2017.
- Detailed information on new leprosy cases detected during 2017-18 indicates the proportion of MB (50.88%), Female (38.70%), Child (8.15%), and Grade II Deformity (3.61%).
- A total of 4,552 Gr. II disability cases were detected amongst the New Leprosy Cases during 2017-18, indicating the Gr. II Disability/million population at 3.34/ million population.

- A total of 10,287 child cases were recorded, indicating the Child Case rate of 8.15%.

### Status in the States/UTs

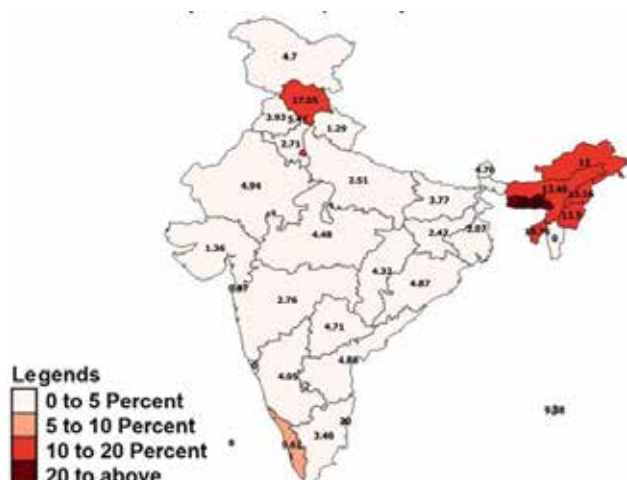
One State (Chhattisgarh) and one U.T. (Dadra & Nagar Haveli) have so far never achieved elimination till 31<sup>st</sup> March, 2018. Four States/UTs wherein elimination was achieved earlier, namely Odisha, Bihar, Jharkhand and Lakshadweep have now reported PR>1/10,000 population, as on 31<sup>st</sup> March 2018.

The map indicating State-wise status of PR/10,000 population as on 31<sup>st</sup> March, 2018 is as below:



23 States and UTs out of 36 States/ UTs showed the Grade II disability percentage amongst new cases from 0 to 5%, as on 31<sup>st</sup> March, 2018. 3 States/ UTs namely, Kerala, Andaman & Nicobar Island and Chandigarh showed the G2D rate from 5% to 10%. Further, 8 States/UTs namely Arunachal Pradesh, Assam, Himachal Pradesh, Manipur, Nagaland, Tripura, Delhi and Puducherry showed the G2D rate from 10% to 20%. 2 States/UTs namely Meghalaya and Daman & Diu showed the G2D rate more than 20%.

The map indicating State-wise status of Grade II disability (G2D) rate as on 31<sup>st</sup> March, 2018 is as below:



Following 7 States/UTs reported the proportion of Child cases more than 10% of new cases detected:-

- (i) Bihar (12.56%), (ii) Maharashtra (10.11 %), (iii) Nagaland (13.16 %), (iv) Tamil Nadu (15.52%) (v) A & N Island (12.50%) (vi) D&N Haveli (17.58%) (vii) Puducherry (32.00%).

#### Status in the Districts

1. District wise status on the basis of Annual New Case Detection Rate (ANCDR) for the year 2017 - 2018 is as below:

510 (72.34%) districts out of total 705 have ANCDR < 10 per 100,000 population and 81 districts showed ANCDR > 20/100,000. Only 13 districts reported the ANCDR > 50/1,00,000 population which are spread in Bihar (1), Chhattisgarh (2), Gujarat (3), Maharashtra (3), Odisha (3) and Dadra & Nagar Haveli (1).

**Comparison of number of districts on the basis of ANCDR/1,00,000 population of last two years is given in table below:**

ANCDR/100,000	2016-17	2017-18
<10	495	510
>10-20	86	114
>20-50	77	68
>50-100	23	12
>100	1	1
<b>Total</b>	<b>682</b>	<b>705</b>

2. District wise status on basis of PR as on 31<sup>st</sup> March, 2018 is below:

A total of 572 districts (81.13%), out of total 705 districts showed PR < 1/10,000 population. The numbers of districts with PR from 1 to 2/10,000 population have increased from 75 to 83. Further, 50 districts of 12 States/UTs reported PR > 2/10,000 namely Bihar (5), Chhattisgarh (11), Gujarat (6), Jharkhand (2), MP (3), Maharashtra (5), Odisha (9), Telangana (1), West Bengal (4), D&N Haveli (1), Delhi (2) and Lakshadweep (1).

**Comparison of number of districts on the basis of PR/10,000 population of last two years is given in table below:**

PR/10,000	2016-17	2017-18
<1	554	572
1-2	75	83
2-5	49	47
5-10	4	3
>10	0	0
<b>Total</b>	<b>682</b>	<b>705</b>

3. 298 districts (42.26%) reported Gr. II disability more than 2/million population.
4. A total of 1,18,391 cases (94.55%) completed their treatment within the specified period and were released from treatment (RFT) as cured during 2017-18.

#### Other Programme aspects

##### A. Disability Prevention and Medical Rehabilitation (DPMR)

1. Total 127 (Govt.-67 and NGO-60) Institutions have been recognized for conducting Reconstructive surgeries to correct the disability in Leprosy Affected Persons.

2. During the year 2017-18, a total of 2,465 RCS (Govt. – 953 and NGO – 1512) were conducted.
3. A total of 457 relapse cases were confirmed.
4. MCR foot wears were provided to 82,941 Leprosy Affected Persons in year 2017-18.

### B. ASHA Involvement

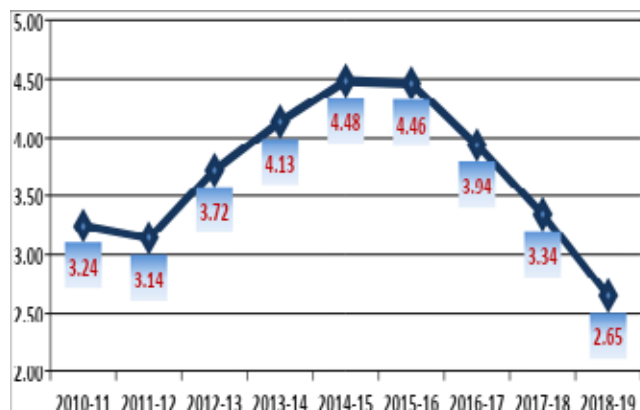
ASHA based Surveillance for Leprosy Suspects (ABSULS) in order to screen the population at the village level for any signs of leprosy and for referral of suspects to designated health centres was introduced from 1<sup>st</sup> July, 2017. Out of the total 1,26,164 new cases detected during 2017-18, ASHAs referred only 46,849 cases (37.13%).

### MAJOR ACTIVITIES AND ACHIEVEMENTS

Inspired by the success achieved in the programme implementation during 2016-17 & 2017-18, a year long Sparsh Leprosy Elimination Campaign (SLEC) is being implemented from 2nd October, 2018 to 2nd October, 2019 wherein all major innovations are being implemented by this Ministry from 2nd October, 2018 to 2nd October, 2019. This campaign which was launched on the 150<sup>th</sup> Birth Anniversary of Mahatma Gandhi, focussed on conducting two rounds of Leprosy Case Detection Campaigns (LCDC), to cover population of around 600 million, in 251 districts, of 25 States/UTs, with first round of LCDC in September & October 2018 and second round of LCDC in February, 2019. On the basis of the partial reports received, the following picture emerges:

- 17 States/UTs have detected around 23,000 hidden leprosy cases during LCDC, 2018.
- 459 districts of 30 States/UTs have started the implementation of ABSULS in India.
- During SLAC, 2019 major activity performed on Anti Leprosy Day, 30<sup>th</sup> January, 2019 during Gram/Ward Sabha meeting was role play by school children as Mahatma Gandhi, in which contribution of “Bapu”

for anti-Leprosy work was showcased and message regarding stigma reduction against Leprosy and mainstreaming of Persons affected by Leprosy was disseminated. As per the reports submitted by 32 States/ UTs, 4.2 Lakhs villages observed SLAC out of 5.2 Lakhs villages i.e., 79%. The impact of these activities on the trend of G2D/ million population is given in the graph below:



### 5.4 REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME (RNTCP)

The Government of India (GoI) launched the National TB Programme in 1962 to fight this massive public health problem. The RNTCP, based on the internationally recommended Directly Observed Treatment Short-course (DOTS) strategy, was launched in 1997 and expanded across the country by 2006. In 2007, GoI introduced the Programmatic Management of Drug Resistant TB (PMDT) to combat drug resistance and achieved full geographical coverage by 2013.

The program has come a long way since then and has undergone major changes over the past few years. Much effort is being made to make the program more patient-centric and provide comprehensive treatment care and support. The Ministry has developed the National Strategic Plan (NSP) for Tuberculosis Elimination (2017-25) which builds on the success and learnings of the last NSP and encapsulates the bold and innovative steps required to eliminate TB in India by 2025, five years ahead of the global targets.





*Director General-WHO Meeting with Hon'ble Union Health Minister on 13.03.2019*

RNTCP is in line with other health sector strategies and global efforts, such as the National Health Policy 2017, World Health Organization's (WHO)

End TB Strategy, and the Sustainable Development Goals (SDGs) of the United Nations (UN).





*DELHI END-TB SUMMIT 2018 at Vigyan Bhavan, New Delhi on 13.03.2018  
Inaugurated by Hon'ble Prime Minister of India Sh. Narendra Modi*

### Estimated TB Burden in India

Estimates of TB Burden	India	Global	% of Global
Incidence TB cases	2.74 million	10.0 million	27%
Mortality of TB	410,000	1.3 million	31%
Incidence HIV TB	86,000	0.92 million	9%
Mortality of HIV-TB	11,000	300,000	4%
MDR-TB	135,000	558,000	24%
<b>Total</b>	<b>682</b>	<b>705</b>	

Source : Global Tuberculosis Report 2018, WHO

India is highest TB burden country in the world. Out of the estimated global annual incidence of 10 million TB cases; the estimated burden in India is 2.74 million. The estimated Incidence of Tuberculosis is 204 cases per 100,000 populations and the mortality rate is 31 per 100,000 populations as per the Global TB Report 2018.

### Goal of the Programme

The goal of TB control Programme is to decrease mortality and morbidity due to TB and cut transmission of infection until TB ceases to be a major public health problem in India.

Major objectives of the programme:

- Reduce incidence & mortality due to TB.
- Prevent drug resistance & effectively manage drug-resistance TB cases.

- Improve outcomes among HIV-infected TB patients.
- Involve private sector on a scale commensurate with their dominant presence in health care services.

### **Actions initiated under the National Strategic Plan (NSP) to end TB in India**

Currently TB incidence is declining by about 1-2% per year. To achieve targets under NSP, we need to

have a decline in TB incidence by about 10 to 15% per year.

### **Targets for TB under NSP (2017-25)**

- 80% reduction in TB incidence (i.e. reduction from 217 per lakh to 44 per lakh)
- 90% reduction in TB mortality (i.e. reduction from 32 per lakh to 3 per lakh)
- Zero catastrophic costs for affected families due to TB.



*World TB Day celebrated on 24.03.2018*



*World TB Day celebrated on 24.03.2018*

## TB Elimination Initiatives

- More than 20 million TB patients treated & saved more than 3.5 million additional lives in India.
- Treatment success rates have tripled from 25% in pre-RNTCP era to 83% presently & TB death rates have reduced from 29% to 4%.
- TB has been a notifiable disease in India and Standards for TB Care in India (STCI) developed to ensure uniform standards of care across all sector of health care providers.
- Implemented through more than 16,574 designated microscopy Centres & treatment available in every village through 400,000 Treatment Support Centres.
- Gazette on mandatory TB notification published in March, 2018 with punitive actions to providers who do not notify TB patients.
- A case based notification system has been established through online mechanism – NIKSHAY.
- Country achieved MDGs related to Tuberculosis in 2016.
- Daily Regimen for treatment of TB has been launched to cover entire county from October, 2017 onwards.
- Digital tools are expanded with expansion IT enabled adherence support system, SMS reminders to TB patients, introduction of NIKSHAY Aushadhi (drug distribution management system), 20000 tablet computers to staff for online monitoring mechanism.

## TB Notification

- It is estimated that 27.4 lakh incident TB patients occur in India (204/lakh/year)

- In 2018, 21.55 lakh TB patients were notified, of which 5.42 lakh were from private sector. 3.5 lakh TB patients were notified from the private sector in 2017
- MoU has been signed on 10<sup>th</sup> May, 2018 with Indian Medical Association (IMA) for wide dissemination of services for TB patients through RNTCP. Under this MoU, private providers will be sensitized in 1000 out of 1700 IMA branches.
- Using Global Fund Grant, public private support agency interventions have been initiated through JEET (Joint Effort for Elimination of TB) Consortium in 45 large cities and 348 districts.
- Informer and Private Sector incentives

## Active Case Finding (ACF)

Active TB Case Finding activities began under Revised National TB Control Programme in 2017 for systematic active TB screening among high risk population. Mobile TB Diagnostic Van has been provided to each State for active TB case finding which enables reaching too hard to reach area for early detection of TB. During 2018, 6.58 crore population has been screened and 17,223 cases have been diagnosed.

## Drug Resistant TB Services

Newer drug-Bedaquiline and shorter regimen for treatment of drug resistant TB has been rolled out across the country in 2018. It is estimated that there are 1.35 lakh drug resistant TB patients in India. In 2018, 58,347 drug resistant TB patients were diagnosed as compared to 38,605 in 2017.

### a. Universal Drug Susceptibility Testing (UDST)

Expansion of rapid molecular diagnostics from 628 to 1180 Cartridge Based Nucleic Acid Amplification Test (CBNAAT) machines, covering all districts for decentralized diagnosis of Drug Resistant TB services. 10.47 Lakh TB patients were tested for rifampicin resistance in 2018.



### ***b. Shorter Regimen and Bedaquiline***

In 2018, Shorter Regimen and Bedaquiline for treatment of drug resistant TB patients has been expanded to the entire country. Currently, 409 districts DR-TB centres including 148 Nodal DR-TB Centres are established across the country. In 2018, more than 16,300 DR-TB patients were initiated on Shorter regimen and 4,673 DR-TB patients on newer drug containing regimen.

### **NIKSHAY Poshan Yojana (NPY)**

Financial assistance for nutrition support to all TB patients at rate of Rs.500 per month till completion of treatment has been started from April 2018 through Direct Benefit Transfer.

8.8 Lakh TB patients have been provided incentive from April, 2018 to December, 2018.

### **Community engagement in TB response**

For patient centric and community led response to TB, National TB Forum has been established to engage community. Similarly, State and District level forums are being established to create a network of TB Champions.

- State level TB Forums established in 7 States (Chandigarh, Delhi, Gujarat, Nagaland, Sikkim, Tamil Nadu and Tripura)
- District level TB Forums established in 87 Districts in Assam, Gujarat, Nagaland, Sikkim, Tamil Nadu, Telangana and Tripura.

### **Multi-stakeholder Involvement**

- Inter-ministerial meeting for involvement in TB response was held on 16<sup>th</sup> August, 2018 and was attended by over 25 Ministries.



*World TB Day celebrated on 24.03.2019*



Individual ministries are being followed up.

- Pilot project with Department of Posts has been initiated on 19<sup>th</sup> September, 2018 for utilizing postal services for sputum sample transportation.
- Private Sector Engagement – Incentives for notification, reinforcement of schedule H1 and notification from chemists has been initiated.

### IEC Activities

- Media campaign has been initiated in digital, social and mass media
  - 2 months campaign in 15 DD and 91 National / Regional Channels
  - 1-month campaign in 25 AIR Channels and 242 private FM Channels
  - Digital media campaign in 3023 theatres with one spot / show / day
  - Media campaign during ASIA Cup (Sept. 15 – 28, 2018) & India West Indies 2018 (ODI & T20) from 21<sup>st</sup> October to 11<sup>th</sup> November, 2018 cricket series on DD Sports which availed 3 Crore viewership
  - 1-month campaign through audio advertisement at bus terminals (302 bus stops in 7 States).
  - Participation in “25th MTNL Perfect Health Mela” held from 23<sup>rd</sup>-27<sup>th</sup> October, 2018 at Talkatora Indoor Stadium, New Delhi under the theme of “Affordable Health Care”.

### Research & Development

India TB Research Consortium has been formed to work on a series of scientific ventures, including development of newer vaccines, newer molecular diagnostics and treatment regimens. Government of India also is conducting a National TB Prevalence

survey across the country to estimate the disease burden at Central & State levels.

### Financial Allocation to RNTCP

Sl. No.	Year	Allocation (Rs. in Crore)	Expenditure (Rs. in Crore)
1	2015-16	640.00	639.86
2	2016-17	640.00	677.78
3	2017-18	2791.00	2759.44
4	2018-19	3140.00	2237.79

### 5.5 NATIONAL IODINE DEFICIENCY DISORDERS CONTROL PROGRAMME (NIDDCP)

In order to prevent and control Iodine Deficiency Disorders in the country, GOI launched National Goitre Control Programme (NGCP) in 1962. Subsequently, the programme was renamed as National Iodine Deficiency Disorders Control Programme (NIDDCP) in 1992 so as to cover all Iodine Deficiency Disorders and is being implemented in all States/UTs. The objectives of NIDDCP are to bring down the prevalence of IDD to below 5% in the country and to ensure 100% consumption of adequately iodised salt (>15ppm) at the household level.

Results of sample surveys conducted in 427 districts covering all the States/Union Territories have revealed that 348 districts are endemic where the prevalence of Iodine Deficiency Disorders (IDD) is more than 5%. No State /UT is free from IDD.

#### Activities under NIDDCP

- Surveys to assess the magnitude of the Iodine Deficiency Disorders in Districts.
- Supply of iodized salt in place of common salt.
- Resurveys to assess iodine deficiency

disorders and the impact of iodized salt after every 5 years in Districts.

- Laboratory monitoring of Iodized salt and Urinary Iodine Excretion.
- Health education and publicity.
- Monitoring quality of Iodized salt by Salt Testing Kit through ASHA at Community/ household level.

### Significant achievements of NIDDCP

1. The production and supply of Iodized salt during 2017 and 2018 was 68.29 lakh tonnes and 64.69 lakh tonnes respectively
2. For effective implementation of NIDDCP 35 States/UTs have established Iodine Deficiency Disorders Control Cells in their State Health Directorate
3. In order to monitor the quality of Iodized salt and Urinary Iodine excretion 35 States/UTs have set up Iodine Deficiency Disorders monitoring laboratories
4. 3<sup>rd</sup> meeting of the Sub- Committee on IDD Surveys was convened on 25<sup>th</sup> May, 2018 at ICMR, New Delhi
5. A Four day training programme on 'Management of laboratory monitoring of iodised salt and urinary iodine excretion' to Lab Technician/Lab Assistant of the State/UT IDD monitoring laboratories was conducted from 4<sup>th</sup> - 8<sup>th</sup> December, 2018 at AIH&PH, Kolkata
6. A "National Workshop on IDD Survey Methodology" under NIDDCP was held on 18<sup>th</sup> and 19<sup>th</sup> March, 2019 at New Delhi in collaboration with ICMR.
7. For estimation of iodine content in salt, a total of 80,310 salt samples were collected and analyzed by States/UTs during 2018-19, out of which 71,948 (90%) salt samples were found conforming to the standard (iodine content > 15 ppm).

8. For estimation of Urinary Iodine Excretion (UIE) for bio-availability of iodine, a total of 27,707 urine samples were collected and analyzed by States/UTs during 2018-19, out of which 24,555 (89%) samples were found conforming to the standard (UIE > 100µg/L).
9. For ensuring the quality of iodized salt at consumption level, a total of 1,25,64,759 salt samples were tested by Salt Testing Kit by ASHA in all the States/UTs except Lakshadweep during 2018-19, out of which 1,15,35,819 (92%) salt samples quality was good i.e. salt having iodine >15ppm.

### Information Education & Communication Activities

#### 1. Activities through DD

IDD spots containing messages on consequences of Iodine Deficiency Disorders and benefits of consuming iodated salt were telecast through Doordarshan channels (National Network, DD News, Kisan, DD Sports and Regional)

#### 2. Activities through All India Radio

IDD spots containing messages on major consequences of Iodine Deficiency Disorders and benefits of consuming iodated are being broadcast through All India Radio stations (Vividh Bharati, FM, National News and Primary Channels).

#### 3. Activities through DAVP

Mobile SMS on IDD and importance of Iodized salt in Hindi & English was released on the occasion of Global IDD Prevention Day on 21<sup>st</sup> October, 2018.

#### 4. Activities through the State Health Directorates

State/UT Governments have also been provided grants for undertaking IEC activities at the local level in their regional languages to make the impact of IEC activities more effective including celebration of Global IDD Prevention Day in all districts.