Monthly Malaria Situation of Category - 3 States/UTs

December 2020

Monitoring and Evaluation Division
National Vector Borne Disease Control Programme
Dte. GHS, MOHFW, Govt. of India, New Delhi

Situational Analysis, Trends and Action Points
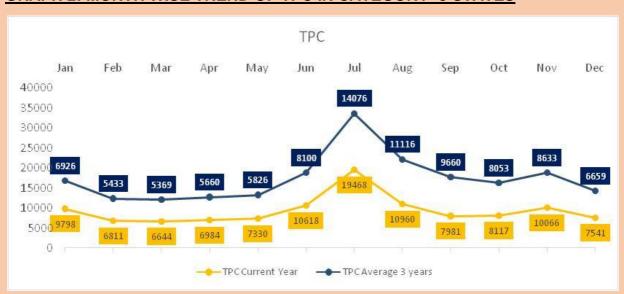
The surveillance information of Malaria (till Dec2020) in Category 3 states is enclosed in this Monthly Malaria Situation Information Report. The various indicators analysed in this report are BSE, TPC, TPR and PF.

GRAPH 1: MONTH WISE TREND OF BSE IN CATEGORY- 3 STATES

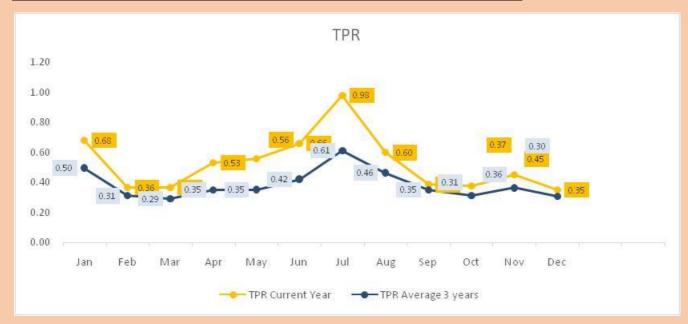There is an increased of BSE by 16.2% during (Jan-Dec) 2020 as compared to three years average cumulative ofJan-Dec. There is also increased of BSE by 20.1%in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

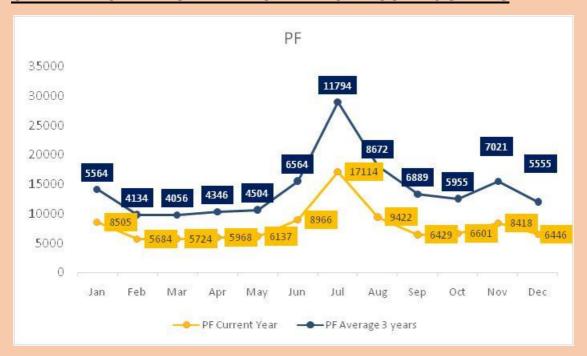## GRAPH 2: MONTH WISE TREND OF TPC IN CATEGORY- 3 STATES

There is a decline of TPC by 71.0% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is decrease of TPC by 39.9% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 3: MONTH WISE TREND OF TPR IN CATEGORY- 3 STATES

The TPR is 6.3 % during (Jan-Dec) 2020 as compared to 16.7 % for last three years average cumulative of Jan-Dec. The TPR was 7.6 % during (Jan-Dec) 2019. The TPR shows a decline of 16.9% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.

GRAPH 4: MONTH WISE TREND OF PF IN CATEGORY- 3 STATES

There is a decline of PF by 63.8% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decline of PF by 26.5% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

List of Districts showing a decrease in Surveillance in the Category 3 States:

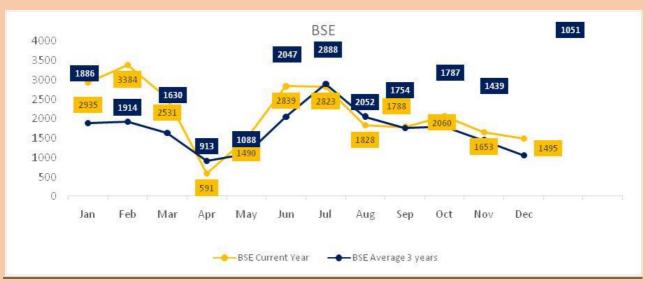|	States/UTs	Districts showing a decrease in Surveillance
1	A & N	Nicobar, North and Middle Andaman, South Andaman
2	Arunachal Pradesh	Anjaw, Changlang, Dibang Valley, East Kameng,East Siang, Kradaadi, Kurung Kumey,Lohit,Longding, Lower Dibang Valley,Lower Siang-Basar, Lower Subansiri, Namsai,Papum Pare, Siang Central, Siang Pangin, Tawang,Tirap, Upper Siang, Upper Subansiri, West Kameng,West Siang
3	Madhya Pradesh	Agar, Alirajpur, Anuppur, Balaghat, Barwani, Betul, Bhind,Bhopal, Chhatarpur, Chhindwara,Damoh, Datia, Dhar, Dindori, Guna,Gwalior, Hoshangabad, Indore, Jabalpur, Jhabua, Katni,Khandwa, Mandla, Mandsaur, Morena, Narsingpur, Panna, Raisen, Rajgarh, Rewa, Satna, Sehore, Seoni, Shahdol, Shajapur, Sheopur, Shivpuri, Sidhi, Tikamgarh, Ujjain, Umaria, Vidisha
4	Mizoram	Aizawal East, Mamit
5	Chhattisgarh	Balod, Balodabazar, Balraampur, Bastar(Jagdalpur), Bemetara, Bijapur, Bilaspur, Dantewada, Dhamtari, Durg, Gariaband, Janjgir(Champa), Jashpur, Kanker, Kawardha,Kondagaon, Korba, Korea, Mahasamund, Mungeli, Narayanpur, Raigarh, Raipur, Rajanandgaon, Sukhma, Surajpur, Surguja
6	DNH	Dadra & Nagar Haveli
7	Jharkhand	Bokaro, Chatra, Deoghar, Dhanbad, Dumka, E.Singhbhum, Garhwa, Giridih, Godda, Gumla,Hazaribagh, Khunti, Koderma, Latehar, Lohardaga, Pakur, Palamu, Ramgarh, Ranchi, Saraikela, Simdega, W.Singhbhum
8	Meghalaya	East Garo Hills, East Jaintia Hills, East Khasi Hills, North Garo Hills, Ri-Bhoi, South GaroHills,South West Garo Hills, South West Khasi Hills West Garo Hills, West Jaintia Hills (Jaintia Hills)
9	Odisha	Angul, Bargarh, Bhadrak, Bolangir, Gajapati, Ganjam, Jagatsinghpur, Jajpur, Jharsuguda,Kalahandi, Kendrapada, Keonjhar, Khurda,Koraput, Malkangiri, Mayurbhanj, Nawarangpur, Nayagarh, Nuapada, Phulbani (Kandhamal), Sambalpur, Sonepur
10	Tripura	DhalaiTripura,Gomati,Khowai,Sipahijala,SouthTripura,Unakuti,West Tripura

Action points for all Category 3States/UTs:

· States/UTs need to focus on improving Malaria surveillance along with COVID19 activities, focusing on migratory workers..

· State /UTs need to share the detailed case reports regarding any COVID19-Malaria co-infections reported.

· States/UTs need to perform data analysis at sub district level to identify hotspots and implementing focal strategies.

· States/UTs need to focus on surveillance of migratory workers.

· State /UT needs preparedness and response for any Malaria outbreak.

· States/UTs need to intensify monitoring & supervision activities

· States/UTs need to ensure >80% usage of LLIN by community.
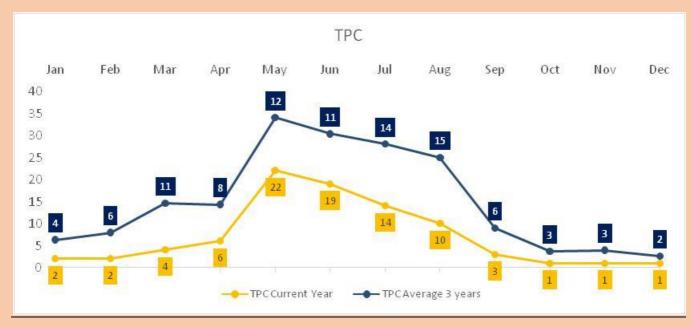
2) ANDAMAN & NICOBAR ISLANDS

- States to intensify vector control measures by identifying potential vector breeding sites, environmental management, biological control and focus based adult vector intervention.

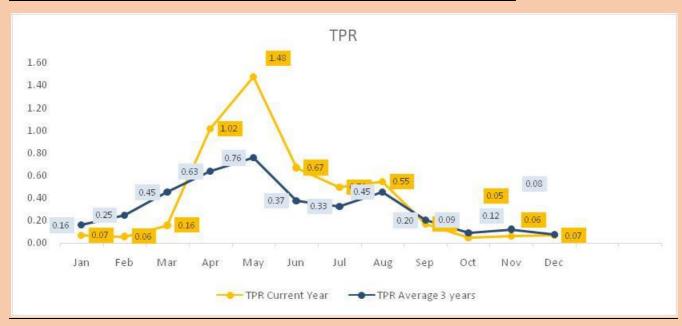## GRAPH 1:MONTH WISE TREND OF BSE IN ANDAMAN &NICOBAR

There is a decline of BSE by 43.3% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decline of BSE by 32.1% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.
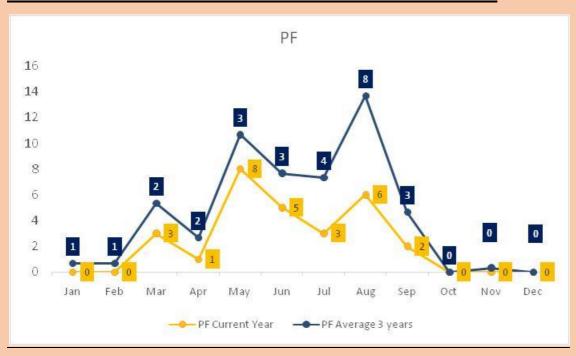
GRAPH 2:MONTH WISE TREND OF TPC IN ANDAMAN &NICOBAR

There is a decline of TPC by 70.8% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec.There is a decrease of TPC by 58.2% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 3: MONTH WISE TREND OF TPR IN ANDAMAN &NICOBAR

The TPR is 4.8 during (Jan-Dec) 2020 as compared to 7.9 for last three years average cumulative of Jan-Dec.The TPR was 6.8% during(Jan- Dec) 2019. The TPR was decreased by 28.8% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.

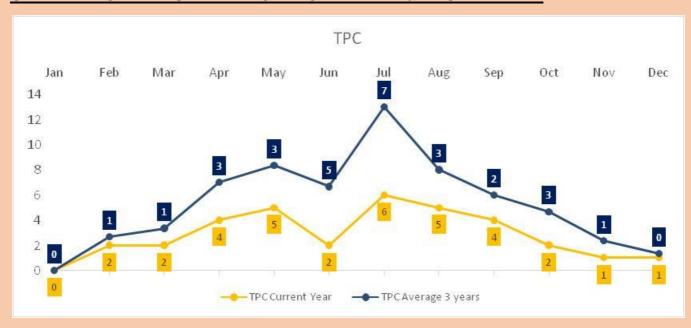## GRAPH 4:MONTH WISE TREND OF PF IN ANDAMAN &NICOBAR

There is a decline in no. of Pf cases by 42.1% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decrease of PF by 42.9% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 1: MONTH WISE TREND OF BSE IN DADRA & NAGAR HAVELI

There is a decline of BSE by 22.4% during (Jan-Dec) 2020 as compared to three years average cumulative ofJan-Dec. There is also decline of BSE by33.5% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

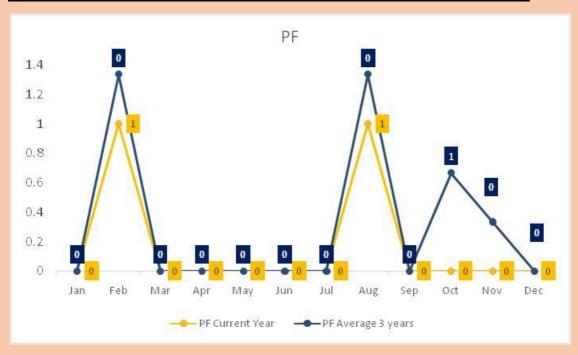**GRAPH 2: MONTH WISE TREND OF TPC IN DADRA & NAGAR HAVELI**

There is a decline of TPC by 80.9% during (Jan-Dec) 2020 as compared to three years average cumulative ofJan-Dec. There is also decline of TPC by 40.0% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 3: MONTH WISE TREND OF TPR IN DADRA & NAGAR HAVELI

The TPR is 0.7% during (Jan-Dec) 2020 as compared to 2.9 % for last three years average cumulative of Jan-Dec.The TPR was 0.8 during(Jan- Dec) 2019. The TPR decline by 8.7% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.

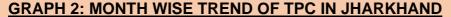## GRAPH 4: MONTH WISE TREND OF PF IN DADRA & NAGAR HAVELI

There is a decline in no. of Pf cases by 73.9% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec.There is a decrease of PF by 33.3% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019
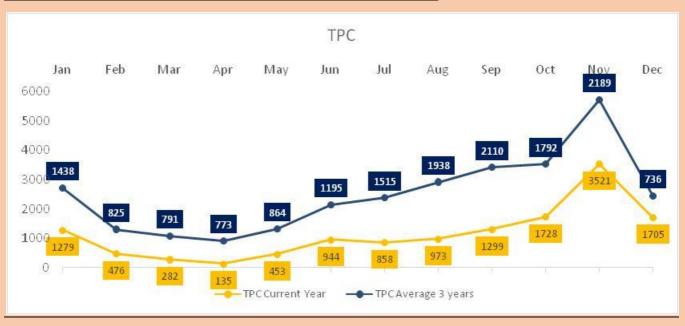
GRAPH 1: MONTH WISE TREND OF BSE IN JHARKHAND

There is a decline of BSE by 45.2% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is also decline of BSE by 51.4% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 2: MONTH WISE TREND OF TPC IN JHARKHAND

There is a decline of TPC by 80.4% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decrease of TPC by 67.3% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 3: MONTH WISE TREND OF TPR IN JHARKHAND

The TPR is 8.4% during (Jan-Dec) 2020 as compared to 21.3 % for last three years average cumulative of Jan-Dec. The TPR was 10.9 during (Jan- Dec) 2019. The TPR decline by 22.8% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.

GRAPH 4: MONTH WISE TREND OF PF IN JHARKHAND

There is a decline of PF by 63.4% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is decline of PF by 48.8% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.
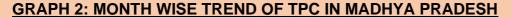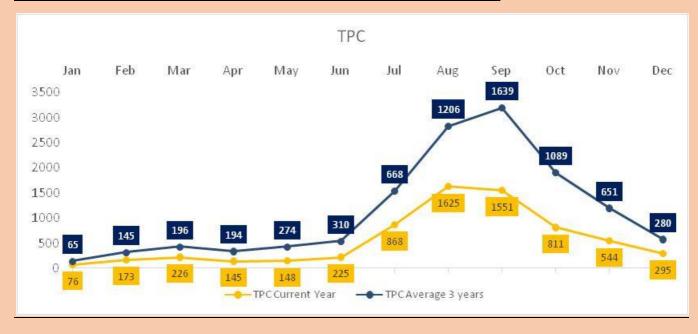
GRAPH 1: MONTH WISE TREND OF BSE IN MADHYA PRADESH

There is increased of BSE by 10.4% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is also increased of BSE by9.5%in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.
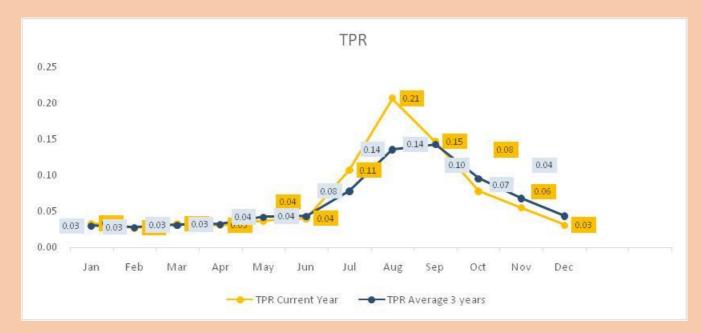
GRAPH 2: MONTH WISE TREND OF TPC IN MADHYA PRADESH

There is a decline of TPC by 76.4% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decrease of TPC by53.5% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 3: MONTH WISE TREND OF TPR IN MADHYA PRADESH

The TPR is 0.8 % during (Jan-Dec) 2020 as compared to 2.9% for last three years average cumulative of Jan-Dec. The TPR was 1.5 during (Jan- Dec) 2019. The TPR decline by 44.4% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.

GRAPH 4: MONTH WISE TREND OF PF IN MADHYA PRADESH

There is decline of PF by 53.3% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is an increase of PF by 11.6% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019
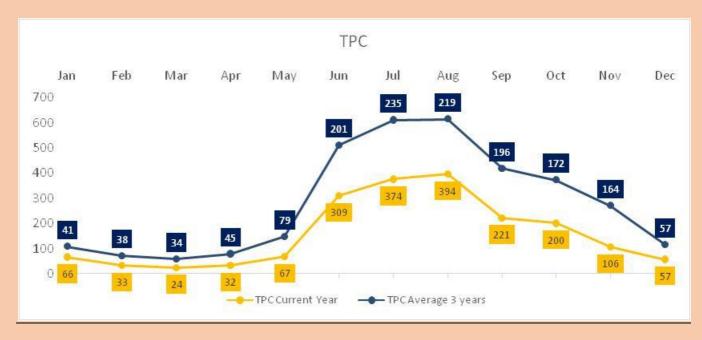
GRAPH 1: MONTH WISE TREND OF BSE IN MEGHALAYA

There is a decline of BSE by 16.1% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is also decline of BSE by 22.5% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

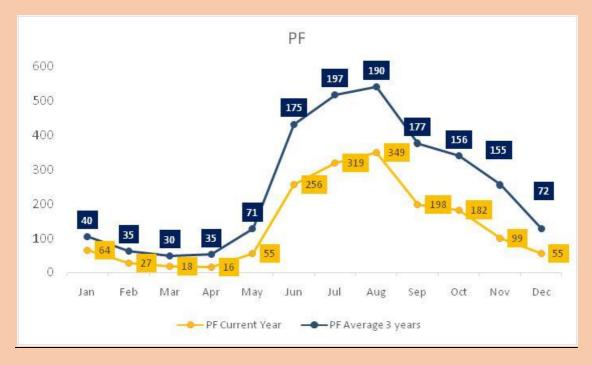**GRAPH 2: MONTH WISE TREND OF TPC IN MEGHALAYA**

There is a decline of TPC by 78.5% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decrease of TPC by 30.2% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

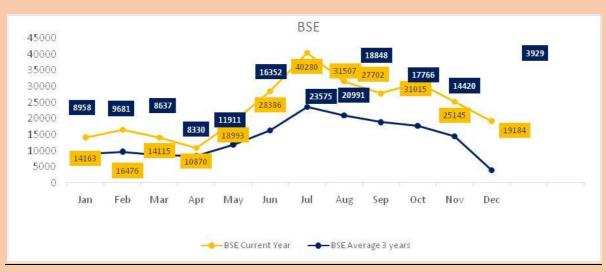**GRAPH 3: MONTH WISE TREND OF TPR IN MEGHALAYA**

The TPR is 6.2 % during (Jan-Dec) 2020 as compared to 25.4% for last three years average cumulative of Jan-Dec, The TPR was 7.2 during (Jan-Dec) 2019. The TPR decline by 13.4% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.
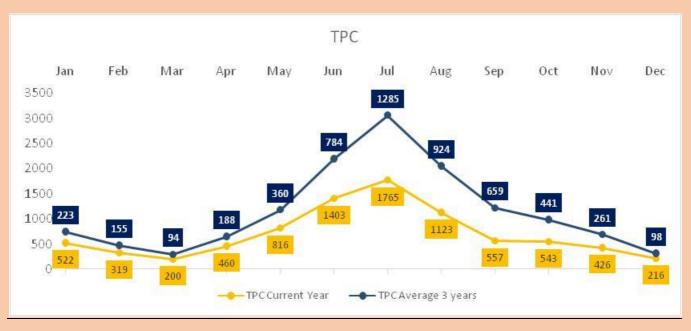
GRAPH 4: MONTH WISE TREND OF PF IN MEGHALAYA

There is a decline of PF by 79.0% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is decline of PF by 30.7% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019
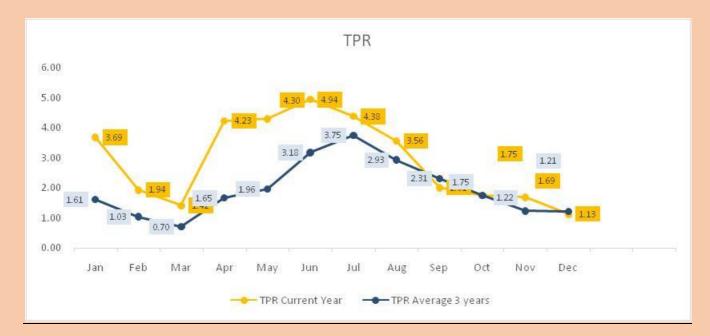
GRAPH 1: MONTH WISE TREND OF BSE IN MIZORAM

There is an increase of BSE by 25.7% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is also an increase of BSE by 20.0% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.
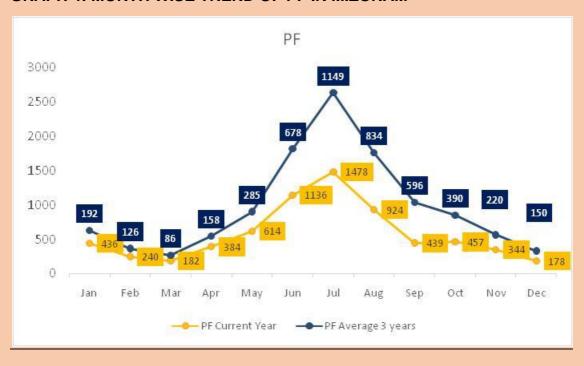
GRAPH 2: MONTH WISE TREND OF TPC IN MIZORAM

There is an increase of TPC by 33.5% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decline of TPC by 1.7% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 3: MONTH WISE TREND OF TPR IN MIZORAM

The TPR is 35.0% during (Jan-Dec) 2020 as compared to 29.0 % for last three years average cumulative of Jan-Dec. The TPR was 7.2% during (Jan- Dec) 2019The TPR increased by 0.4% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.
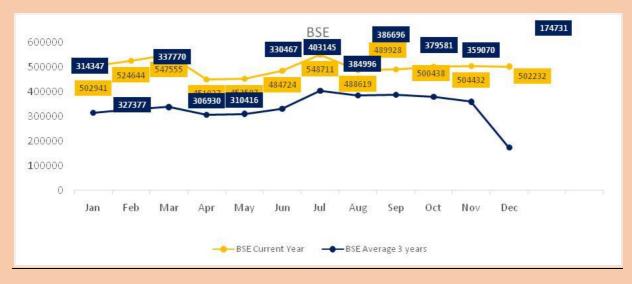
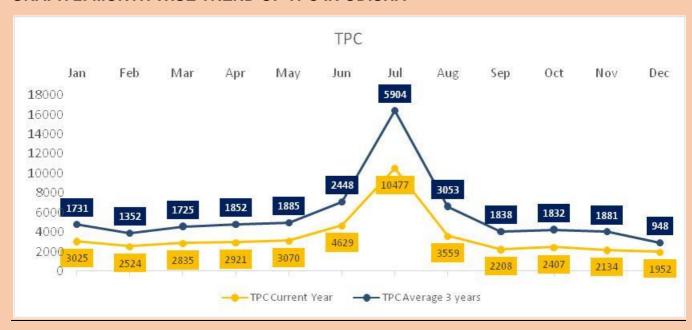**GRAPH 4: MONTH WISE TREND OF PF IN MIZORAM**

There is an increase of PF by 22.4% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is decline of PF by 12.4% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019

GRAPH 1: MONTH WISE TREND OF BSE IN ODISHA

There is a decline of BSE by 7.1% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is also decline of BSE by 8.4% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.
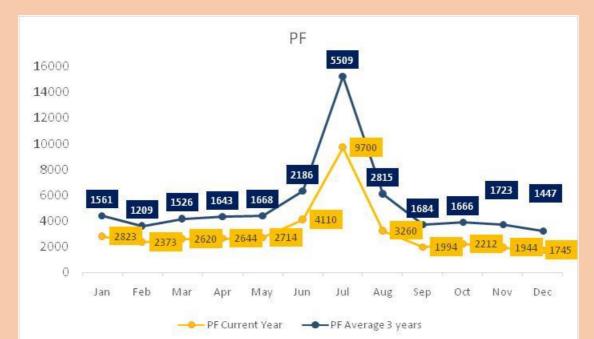
GRAPH 2: MONTH WISE TREND OF TPC IN ODISHA

There is a decline of TPC by 73.9% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is an increase of TPC by 0.6% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 3: MONTH WISE TREND OF TPR IN ODISHA

The TPR is 8.3 % during (Jan-Dec) 2020 as compared to 26.9 % for last three years average cumulative of Jan-Dec. The TPR increased by 17.5% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.

GRAPH 4: MONTH WISE TREND OF PF IN ODISHA

There is a decline of PF by 70.5% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is an increase of PF by 6.6% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 1: MONTH WISE TREND OF BSE IN TRIPURA

There is a decline of BSE by 15.7% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is also decline of BSE by 33.0% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 2: MONTH WISE TREND OF TPC IN TRIPURA

There is a decline of TPC by 70.1% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decrease of TPC by 73.9% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.
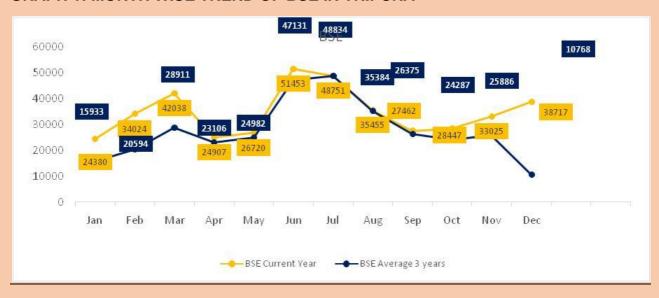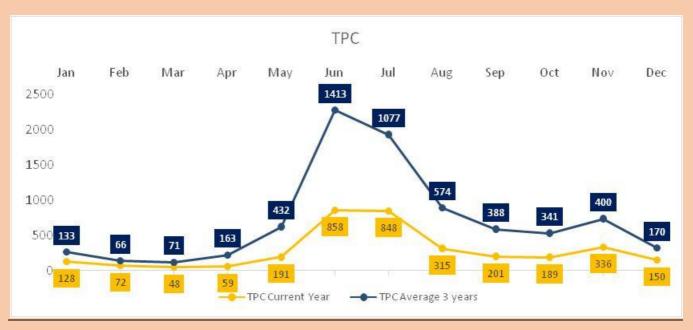
GRAPH 3: MONTH WISE TREND OF TPR IN TRIPURA

The TPR is 8.9 % during (Jan-Dec) 2020 as compared to 23.4% for last three years average cumulative of Jan-Dec. The TPR was 20.7 during (Jan- Dec) 2019 The TPR decline by 57.0% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.
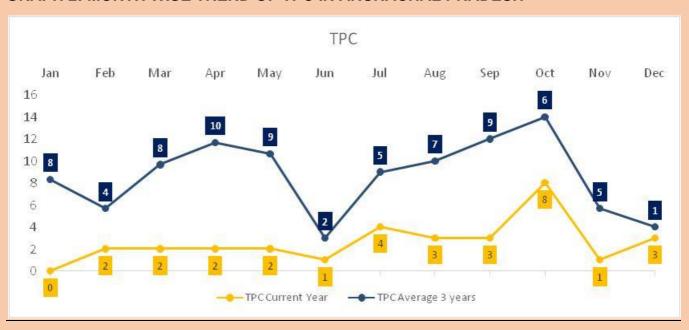
GRAPH 4: MONTH WISE TREND OF PF IN TRIPURA

There is a decline of PF by 69.8% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is decline of PF by 73.4% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019

GRAPH 1: MONTH WISE TREND OF BSE IN ARUNACHAL PRADESH

There is a decline of BSE by 63.6% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is also decline of BSE by 61.8% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 2: MONTH WISE TREND OF TPC IN ARUNACHAL PRADESH

There is a decline of TPC by 97.3% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decrease of TPC by 85.3% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 3: MONTH WISE TREND OF TPR IN ARUNACHAL PRADESH

The TPR is 0.8 % during (Jan-Dec) 2020 as compared to 10.6 % for last three years average cumulative of Jan-Dec. The TPR was 2.0% during (Jan-Dec) 2019. The TPR decline by 62.0% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.

GRAPH 4: MONTH WISE TREND OF PF IN ARUNACHAL PRADESH

There is a decline of PF by 96.8% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is decline of PF by 70.8% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

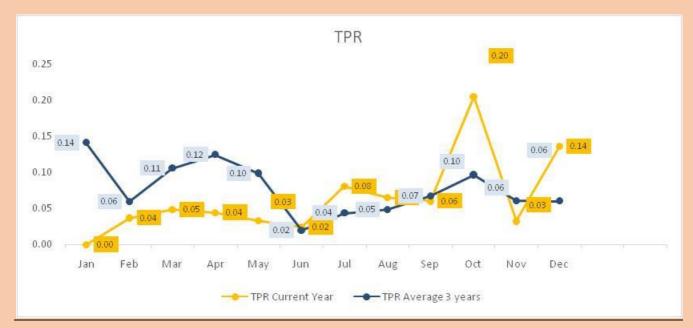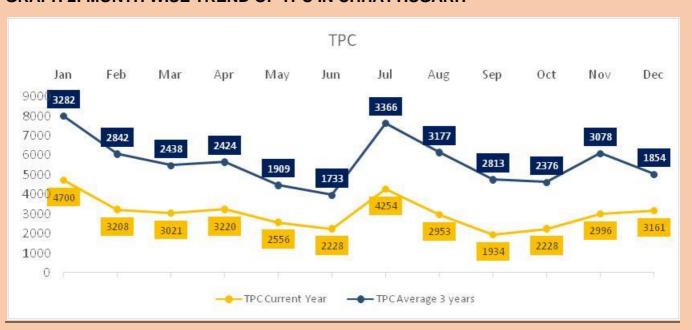## GRAPH 1: MONTH WISE TREND OF BSE IN CHHATTISGARH

There is a decline of BSE by 19.1% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is also decline of BSE by 28.2% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.

GRAPH 2: MONTH WISE TREND OF TPC IN CHHATTISGARH

There is a decline of TPC by 64.2% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is a decrease of TPC by 45.0% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019.
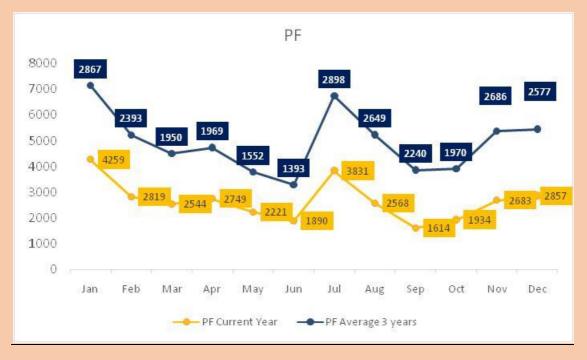
GRAPH 3: MONTH WISE TREND OF TPR IN CHHATTISGARH

The TPR is 10.5% during (Jan-Dec) 2020 as compared to 22.0 % for last three years average cumulative of Jan-Dec. The TPR was 12.7% during (Jan-Dec) 2019. The TPR decline by 17.7% during (Jan-Dec) 2020 as compared (Jan-Dec) 2019.

GRAPH 4: MONTH WISE TREND OF PF IN CHHATTISGARH

There is a decline of PF by 57.5% during (Jan-Dec) 2020 as compared to three years average cumulative of Jan-Dec. There is decline of PF by 35.4% in (Jan-Dec) 2020 vis-à-vis (Jan-Dec) 2019

Epidemiological Indicators - Malaria

S. N	Area	Indicator
1.	Surveillance/ case finding	No. of Fever cases,No. of Malaria cases,No, of Pf cases
2	Surveillance/ case finding	Monthly Blood Smear Examination Rate (ABER) (should be more than 1%of population)
3	Surveillance/ case finding	Annual Blood Smear Examination Rate (ABER) (should be more than 10%of population)
4	Disease burden & impact	Annual Parasite Incidence (API)
5	Disease burden & impact	Annual Falciparum Incidence (AFI)
6	Disease burden & impact	Slide Positivity rate (SPR):Is independent of surveillance activity, therefore a better indicator for impact assessment
7	Disease burden & impact	Slide falciparum Rate (SFR):It is independent of surveillance and indicates Pf preponderance
8	Disease burden & impact	Pf Percentage (Pf %):Indicates trends in proportion of cases due to Pf out of total cases
9	Input	Nos of RDTs & ACTs Planned versus Received & used
10	Input	% of spray Equipment in working condition
11	Input	% of Spray workers trained
12	Process	% of facilities (SC and PHC) / village level functionaries (ASHA, AWW) reporting stock-out of antimalarials lasting more than 15 days during the quarter
13	Process	% of MPHW/ASHA/other volunteers trained for use of RDT / ACT
14	Process	% of Diagnostic facilities functional with microscopy/RDT in the last reporting period
15	Output	Nets treated once/twice in a year
16	Output	% of Eligible Villages Covered by LLINs Should be 80% or more
17	Output	Insecticide use
18	Outcome	IRS Coverage – Population (%) Should be 80% or more
19	Outcome	IRS Coverage – Rooms %

20	Outcome	% of fever cases who were tested for malaria by microscopy/ RDT with a positive test result for RDT and were started on treatment no later than the next day with ACT
21	Outcome	% of households in which beneficiaries reported having slept under ITNs/ LLINs previous night
22	Outcome	% of PHC sampled in which utilization of ITNs/ LLINs was more than 80%