

# PHFI – Proxima Pandemic and Epidemic Management System

## COVID 19: Review Dashboard

As on 4<sup>th</sup> July 2020



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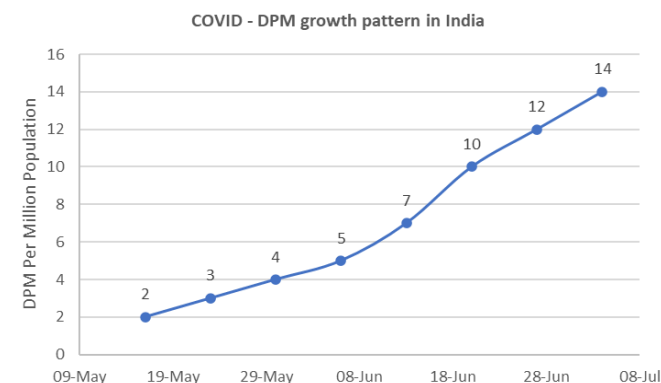
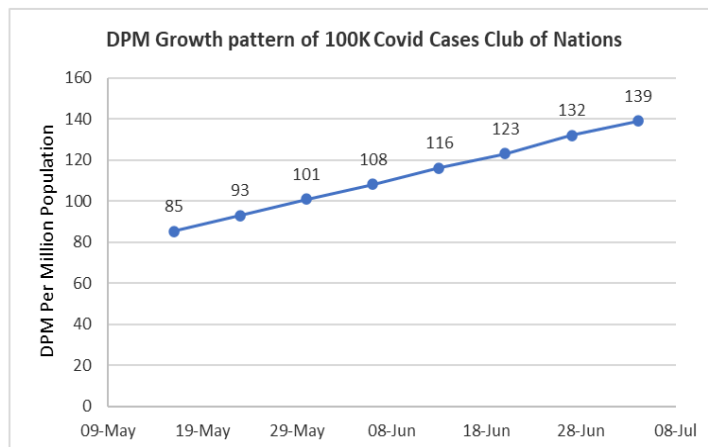
# Analysis of Club of nations having 100K COVID Cases

## Analysis of Quality of Health Index and India's Ranking along with nations having over 100K COVID Cases

Quality of Health: UNDP				COVID Impact Status as on 07 July 2020 (1200 hrs)						
Ranking	Country	Physicians / 10000 Pn	Hospital Beds / 10000 Pn	Population	Tests	Cases	Deceased	Tests / Mn Pop	Cases / Mn Pop	Death / Mn Pop
4	Germany	42	83	83763806	58,73,563	1,98,064	9,092	70,121	2,365	109
15	USA	26	29	330854064	382,17,640	30,40,833	1,32,979	1,15,512	9,191	402
15	UK	28	28	67858826	106,51,308	2,85,768	44,236	1,56,963	4,211	652
25	Spain	41	30	46753443	57,34,599	2,98,869	28,388	1,22,656	6,392	607
26	France	32	65	65262729	13,84,633	1,68,335	29,920	21,216	2,579	458
29	Italy	41	34	60468295	56,60,454	2,41,819	34,869	93,610	3,999	577
42	Chile	11	22	19103405	11,98,261	2,98,557	6,384	62,725	15,628	334
49	Russia	40	82	145929848	213,35,394	6,87,862	10,296	1,46,203	4,714	71
59	Turkey	18	27	84267248	36,82,673	2,06,844	5,241	43,702	2,455	62
65	Iran	11	15	83906701	18,20,000	2,43,051	11,731	21,691	2,897	140
79	Brazil	21	22	212442762	43,16,284	16,26,071	65,556	20,317	7,654	309
82	Peru	13	16	32934728	18,00,690	3,05,703	10,772	54,675	9,282	327
152	Pakistan	10	6	220673722	14,45,153	2,34,509	4,839	6,549	1,063	22
36	Saudi Arabia	24	27	34787354	19,34,391	2,13,716	1,968	55,606	6,143	57
135	Bangladesh	14	5	164645344	8,63,307	1,65,618	2,096	5,243	1,006	13
13	Canada	26	27	37733476	29,75,711	1,05,935	8,693	78,861	2,807	230
41	Qatar	NA	12	2807805	3,86,111	1,00,345	133	1,37,513	35,738	47
<b>129</b>	<b>India</b>	<b>8</b>	<b>7</b>	<b>1378937377</b>	<b>102,11,092</b>	<b>7,20,707</b>	<b>20,178</b>	<b>7405</b>	<b>523</b>	<b>15</b>
<b>Total</b>				<b>3070323128</b>	<b>119105153</b>	<b>9042261</b>	<b>427238</b>	<b>38792</b>	<b>2945</b>	<b>139</b>
<b>India's share (%)</b>				<b>45</b>	<b>9</b>	<b>8</b>	<b>5</b>	<b>38792</b>	<b>2945</b>	<b>139</b>
								<b>Average of nations with 100K cases</b>		

# Comparison of DPM Growth Pattern

India's current and future DPM scenario									
Factors directly influencing India's future DPM		India's Current DPM Status			Pattern among nations having more than 100K COVID cases				
a. India's positivity is directly proportionate to testing		<b>Dates</b>	<b>Deaths</b>	<b>DPM</b>	a. Average DPM is 139. India's current DPM is 15				
b. Recently launched medication and plasma therapy		07-Jun	7117	4.0	b. Highest DPM of a nation is 652 and least is 13				
c. Jammed health infrastructure in mega states/cities, low ratio of medical professionals to population		30-Jun	17008	12.0	c. Tests / Mn Population is 38800. India is 7400				
		07-Jul	20178	14.0	d. Cases / Mn Population is 2945. India is 523				
Various scenario indicated in June 2020									
Population 1379418901	Optimistic		Pragmatic			Pessimistic		Catastrophic	
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7	Scenario 8	Scenario 9
<b>DPM</b>	10	20	30	50	75	100	150	250	400
<b>Deaths</b>	13800	27700	41500	69200	104000	138500	207600	345000	550000
<b>Children &lt;10 years age</b>	690	1385	2075	3460	5200	6925	10380	17250	27500
<b>Women</b>	4830	9695	14525	24220	36400	48475	72660	120750	192500



Countries	Deaths	DPM	Population (Crs)
India	20178	15	137
Qatar	133	47	0.27

## Death Per Million, as standalone measure has its limitations

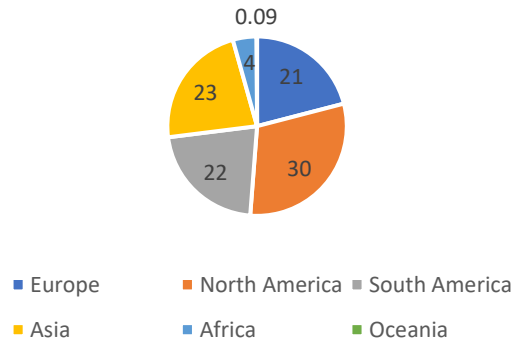
- Qatar is the new member of nations having over 100K COVID cases, carried out 137000 tests / Million population

# Dynamics of COVID Growth – Global & India

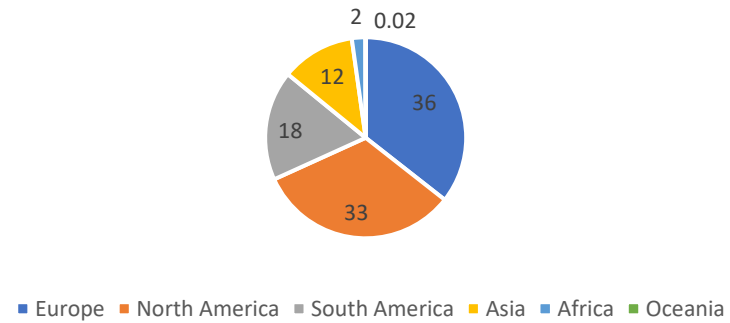
- Africa and Oceania have only 4% and 0.09% of the total world's COVID cases. Does this mean, COVID was managed better in Africa and Oceania than in other continents such as Europe, Americas?

In India, EAG States and Micro States have only 14% and 0.9% of total COVID cases in India. Does this imply that initiatives or micro and EAG states are yielding far better results than the steps taken by mega states?

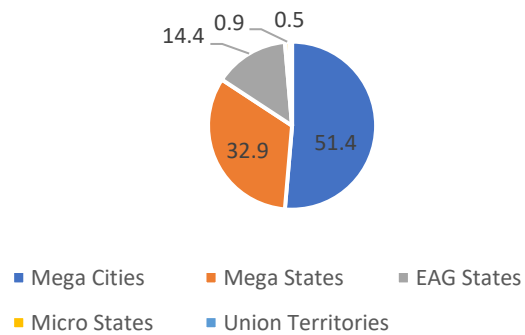
Continentwise %ge share of COVID cases



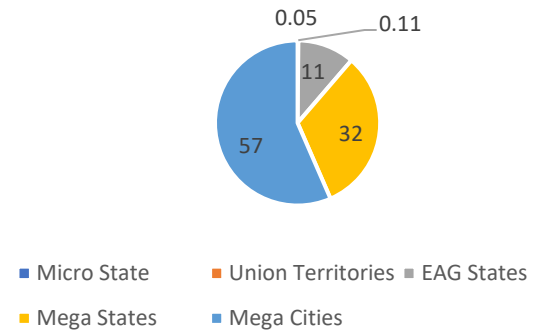
Continentwise %ge share of COVID Deaths



Share of COVID Cases (%)

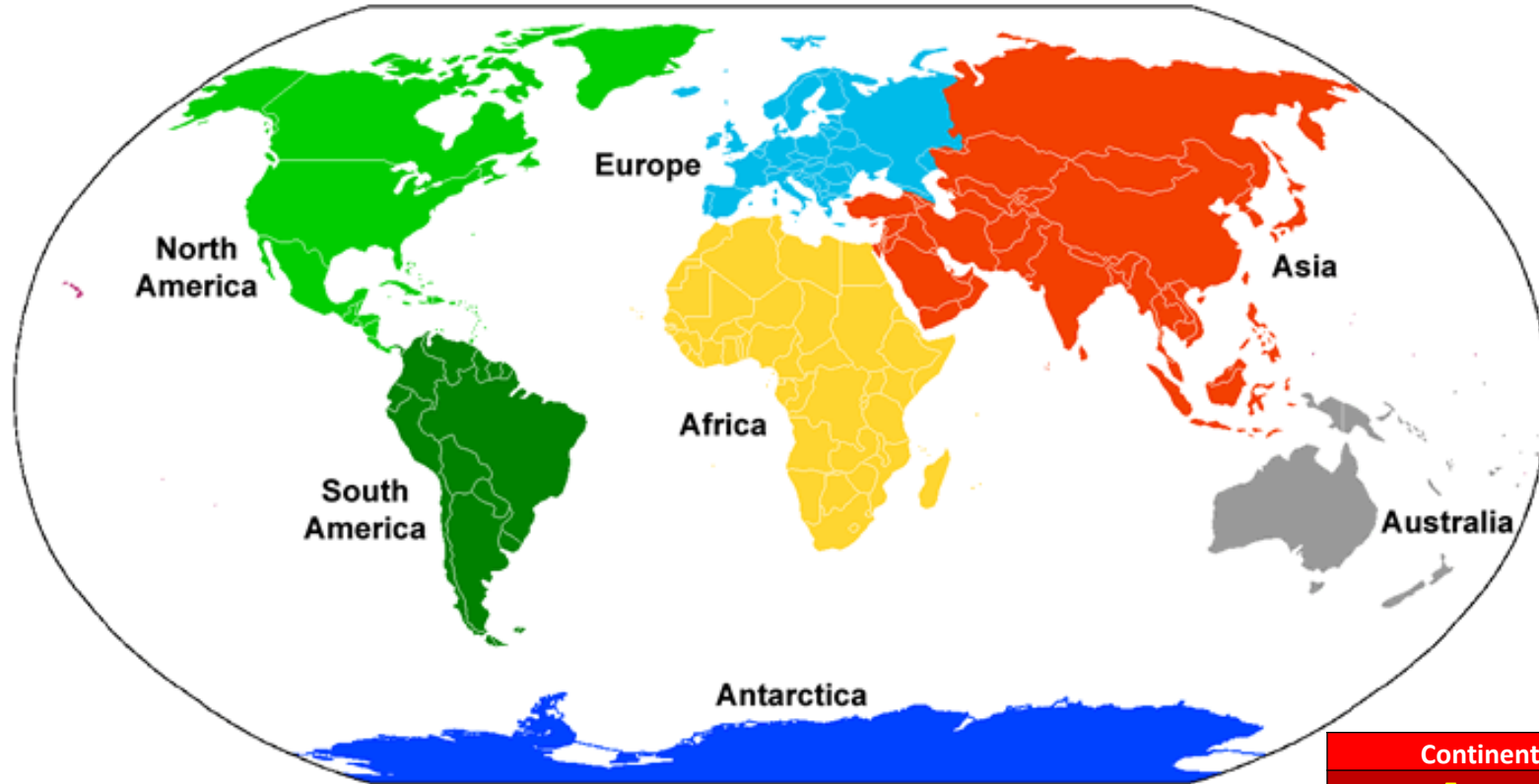


Share of COVID Deaths (%)





7 Continents



Continents	Total Cases	Total Death	CFR
Europe	2515000	194800	7.7
North America	3632500	178700	4.9
Global	6147500	373500	6.1
South America	2615000	96840	3.7
Asia	2715000	65000	2.4
Africa	512000	12030	2.3
Oceania	10500	130	1.2

India	Total Cases	Total Deaths	CFR
	720707	20178	2.80

## People living in Micro and EAG States are more healthier than people living in Mega states

### PPRA - Percentage of Persons that Responded as Ailing (PPRA) during a 15-day period \*

Mega States		EAG States		Micro States		Union Territories	
Andhra Pradesh	14.2	Assam	2.5	Arunachal Pradesh	2.9	Andaman & Nichobar	8.6
Gujarat	6.7	Bihar	2.5	Goa	5.9	Chandigarh	9.4
Haryana	5.9	Chattisgarh	4.9	Manipur	1.9	Dadra & Nagar Haveli	6.3
Himachal Pradesh	10	Jharkhand	6.7	Meghalaya	0.4	Ladakh	NA
Jammu & Kashmir	7.1	Madhya Pradesh	3.9	Mizoram	3.4	Puducherry	2.2
Karnataka	4.3	Odisha	9.2	Nagaland	0.8		
Kerala	24.5	Rajasthan	4.9	Sikkim	3.4		
Maharashtra	8.8	Uttar Pradesh	7.4	Tripura	3.1		
Punjab	11.2	Uttarakhand	3.5				
Tamil Nadu	6.1						
Telangana	5.6						
West Bengal	13.8						

### Number per 1000 of persons treated as in-patient during last 365 days \*

Mega States		EAG States		Micro States		Union Territories	
Andhra Pradesh	38	Assam	10	Arunachal Pradesh	36	Andaman & Nichobar	50
Gujarat	24	Bihar	12	Goa	47	Chandigarh	19
Haryana	29	Chattisgarh	20	Manipur	21	Dadra & Nagar Haveli	26
Himachal Pradesh	44	Jharkhand	14	Meghalaya	17	Ladakh	NA
Jammu & Kashmir	24	Madhya Pradesh	22	Mizoram	28	Puducherry	31
Karnataka	29	Odisha	33	Nagaland	14		
Kerala	105	Rajasthan	25	Sikkim	28		
Maharashtra	31	Uttar Pradesh	23	Tripura	55		
Punjab	31	Uttarakhand	17				
Tamil Nadu	33						
Telangana	23						
West Bengal	42						

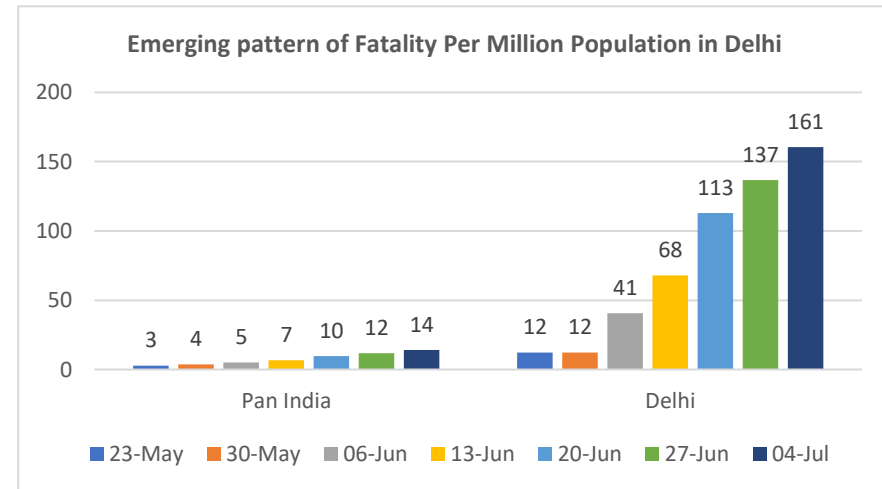
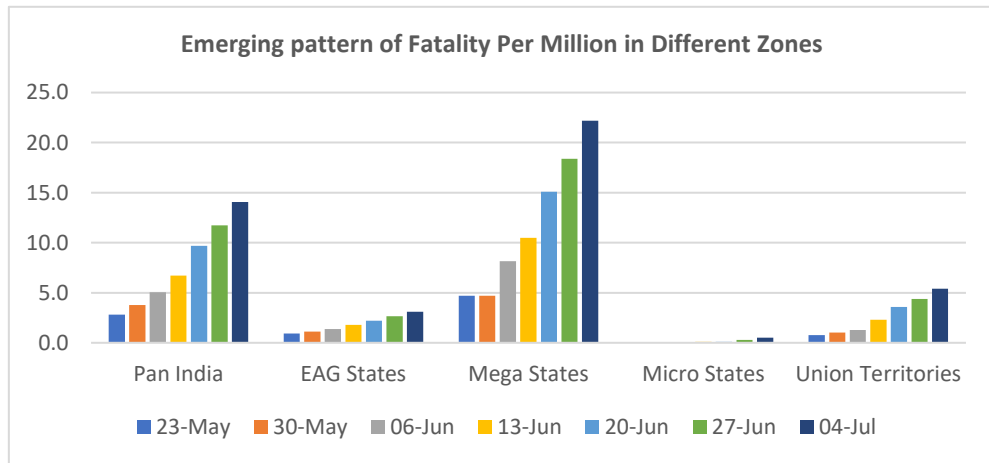
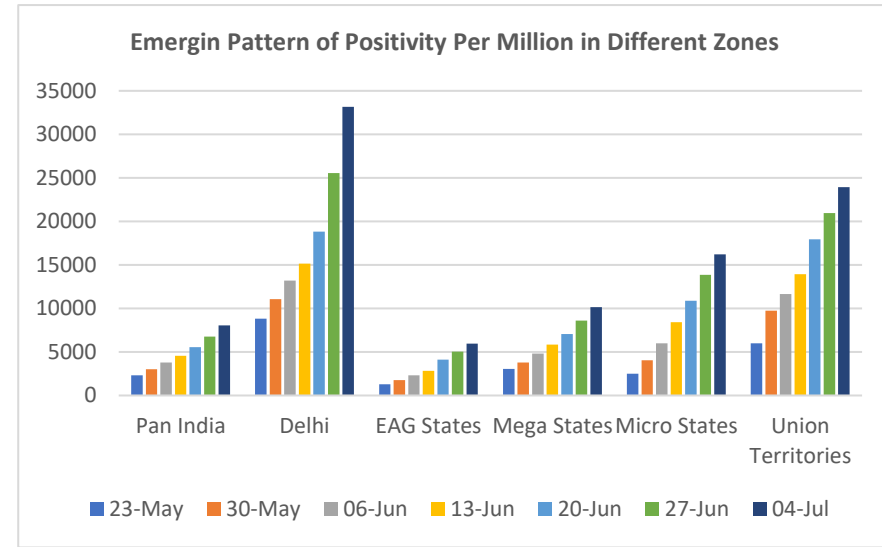
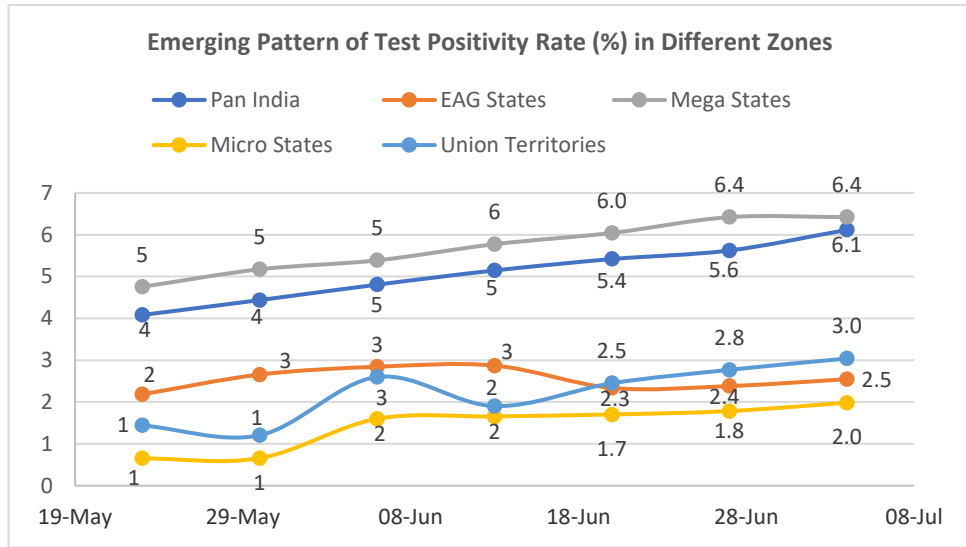
# Strategic Classification of Zones

Parameters	Empowered Action Group (EAG) States	Mega States	Micro States	Union Territories	Mega Cities
<b>Number of States / UTs</b>	<b>9 States</b> classified by Government of India. The key indicators are: High infant and maternal fatality mortality	<b>12 major States</b> in India with high degree of Public Health Infrastructure and contribution to GDP	<b>8 North-Eastern States along Goa</b>	7 Union Territories including Delhi)	7 Cities - Ahmedabad, Bengaluru,, Chennai, Hyderabad. Kolkata, Mumbai, and New Delhi
<b>% ge of Population</b>	<b>50%</b>	<b>40.7%</b>	<b>1.3%</b>	<b>0.28%</b>	7.72%
<b>% ge of Land area</b>	34%	56.7%	6.6%	2.1%	0.6%
<b>% of Total COVID Cases in India</b>	<b>15.5%</b>	<b>28.35%</b>	<b>0.85%</b>	<b>10.6%</b>	<b>44.7%</b>
<b>% ge share of Total COVID tests conducted in India</b>	37%	47%	2.6 %	0,8%	12.6%
<b>% ge share of Total COVID Positive patients death in India (Delhi deceased figure added to Mega City group)</b>	11.1%	32.26%	0.04%	0.1%	56.5%

# Strategic Classification of Zones

Empowered Action Group (EAG) States*	Mega States	Micro States	Mega Cities	Union Territories
Assam	Andhra Pradesh	Tripura	Ahmedabad	Dadra & Nagar Haveli
Bihar	Gujarat	Manipur	Bengaluru	Chandigarh
Chhattisgarh	Haryana	Mizoram	Chennai	Daman & Diu
Jharkhand	Himachal Pradesh	Nagaland	Hyderabad	Puducherry
Madhya Pradesh	Jammu & Kashmir	Meghalaya	Kolkata	Delhi
Orissa	Karnataka	Goa	Mumbai	Andaman & Nicobar
Rajasthan	Kerala	Sikkim	New Delhi	Lakshadweep
Uttarakhand	Maharashtra	Arunachal Pradesh		
Uttar Pradesh	Punjab			
	Tamil Nadu			
	Telangana			
	West Bengal			

## Growth Pattern of Test Positivity and Death Per Million in Different Zones



# COVID 19: Review: Pan India

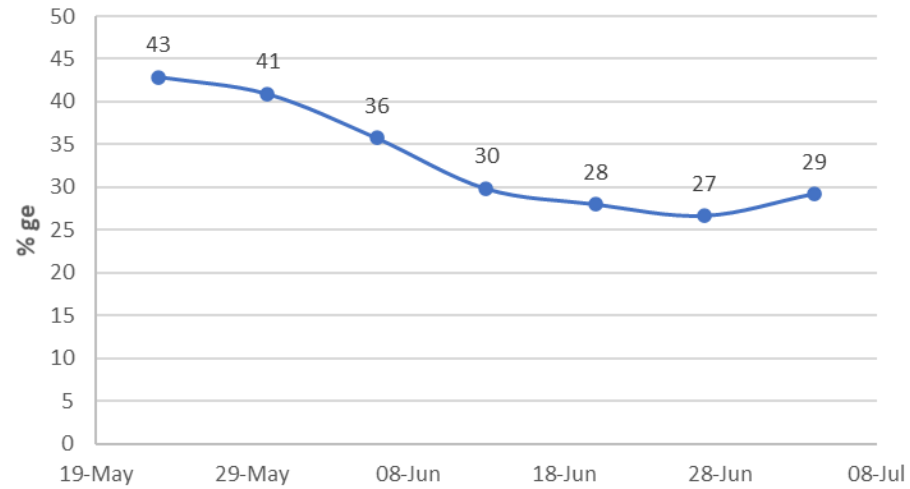
Key Performance indicators:

- 30 day and 90 day moving average growth rate (Positivity and Mortality)
- Testing Efficiency - Test Positivity Rate (TPR)
- Spread of Virus - Test Positivity Per Million (TPM)
- Treatment Efficiency - Mortality Rate (MR)
- Impact of Measures: Death Per Million (DPM)

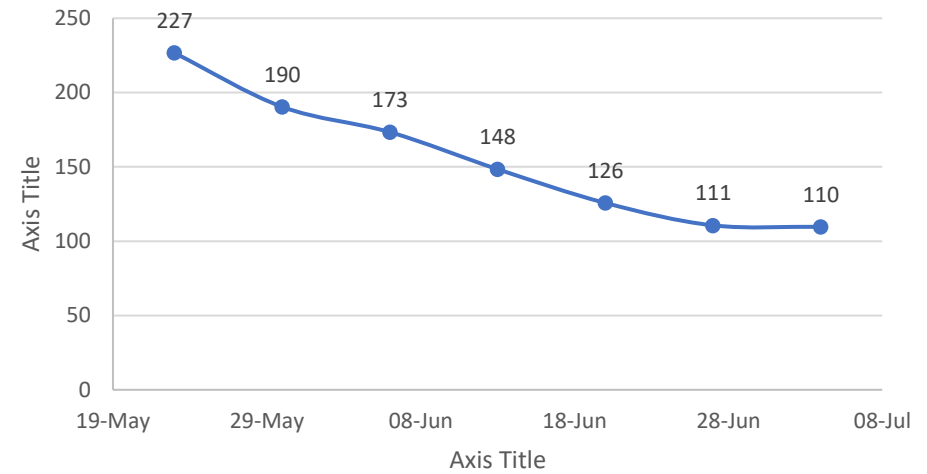
# COVID Positivity Growth Rate in India: 7 and 30 day Moving average



7-Day-Moving Average growth rate of COVID Cases in India



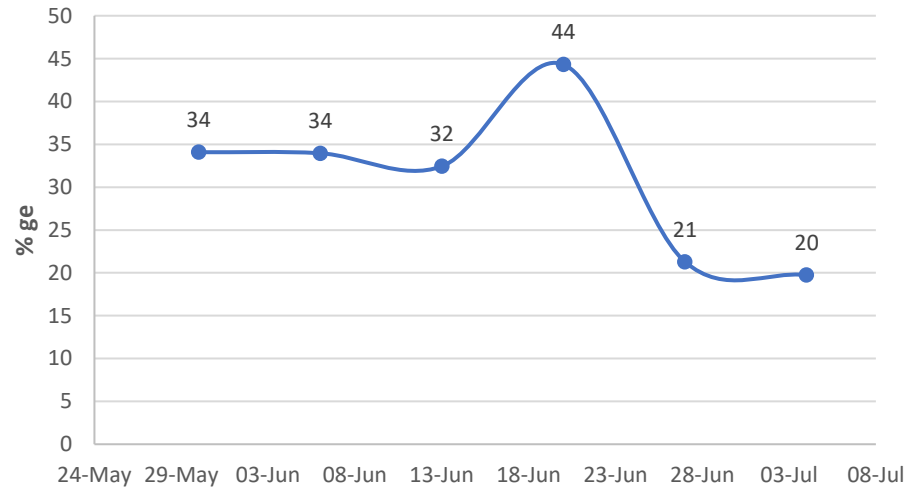
30-Day-Moving Average growth rate of COVID Cases in India



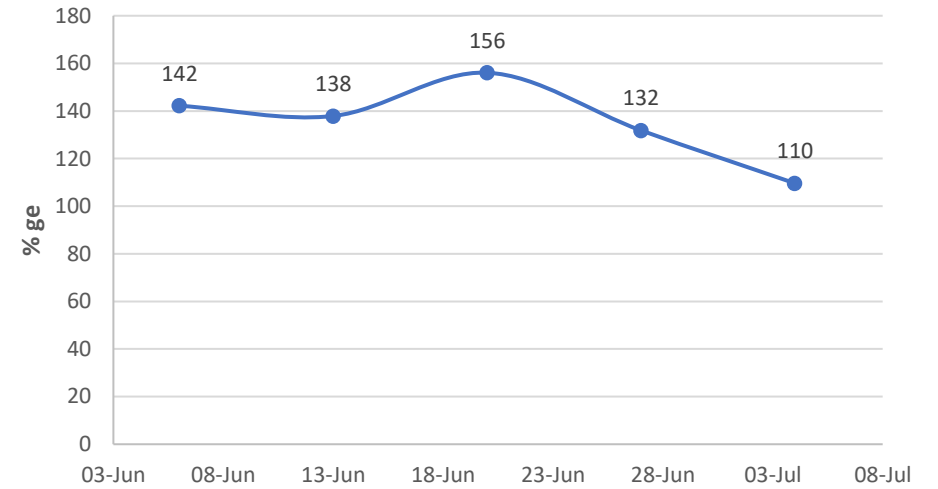
# COVID Fatality Growth Rate in India: 7 and 30 day Moving average



7-Day-Moving Average fatality rate of COVID Cases in India



30-Day-Moving Average fatality rate of COVID Cases in India





# Scorecard: Pan India: Lockdown 1.0 – Unlock 2.0



Period	Zone	Pan India	Population		Performance Indicators				
			1371287168		Testing Efficiency	Spread of Virus	Treatment Efficacy	Impact of Measures	
	Week	Number of Tests	Positive Cases	Mortality	Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)	
Lockdown: 1.0 (1)	1	6 - 11 April	63204	4461	184	7.06	3	4.12	0
Lockdown: 1.0 (2)	2	12 - 18 April	198784	7619	244	3.83	6	3.20	0
Lockdown: 2.0 (1)	3	19 - 25 April	322187	10529	339	3.27	8	3.22	0
Lockdown: 2.0 (2)	4	26 Apr - 02 May	408231	13555	491	3.32	10	3.62	0
Lockdown: 3.0 (1)	5	03 - 09 May	542032	23200	776	4.28	17	3.34	1
Lockdown: 3.0 (2)	6	10 - 16 May	638220	28538	797	4.47	21	2.79	1
Lockdwon: 4.0 (1)	7	17 - 22 May	833699	40087	993	4.81	29	2.48	1
Lockdwon: 4.0 (2)	8	24 - 30 May	764521	40279	1161	5.27	29	2.88	1
Unlock: 1.0 (1)	9	31 May - 06 June	1048358	60871	1761	5.81	44	2.89	1
Unlock: 1.0 (2)	10	07 - 13 June	1105763	75224	2252	6.80	55	2.99	2
Unlock: 1.0 (3)	11	14 - 20 June	1287885	88803	4097	6.90	65	4.61	3
Unlock: 1.0 (4)	12	21 - 27 June	1594567	119192	2826	7.47	87	2.37	2
Unlock: 2.0 (1)	13	28 June - 4 July	1812362	146008	3176	8.06	106	2.18	2
<b>Consolidated</b>			<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>						<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

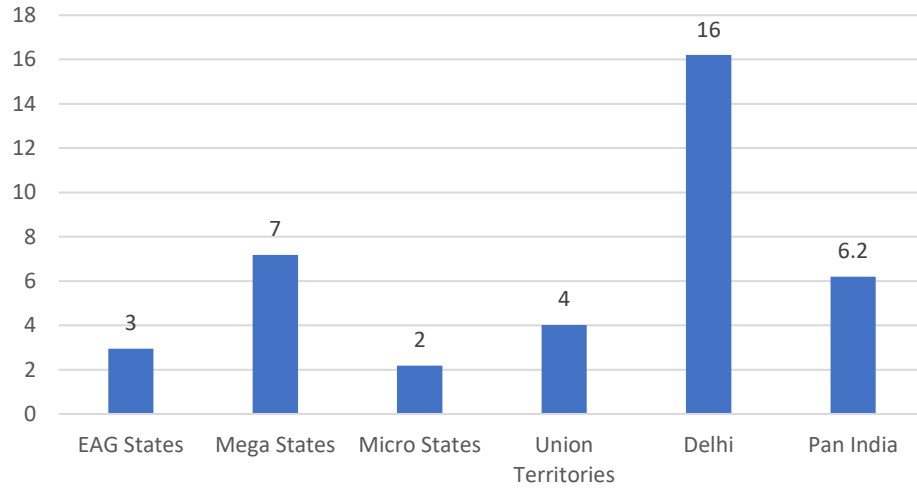
# Zonewise Scorecard: Lockdown 1.0 – Unlock 2.0



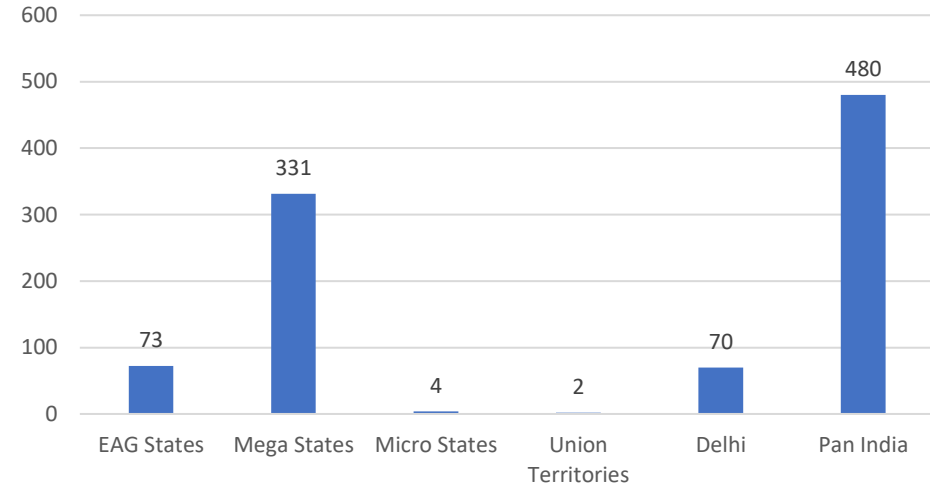
Period	Pan India	Population	1371287168		Performance Indicators			
					Testing Efficiency	Spread of Virus	Treatment Efficacy	Impact of Measures
		Number of Tests	Positive Cases	Mortality	Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)
06th April - 04th July	EAG States	3374732	99587	2007	2.95	73	2.02	1
	Mega States	6321710	454078	14062	7.18	331	3.10	10
	Micro States	261484	5704	9	2.18	4	0.16	0
	Union Territories	67607	2722	21	4.03	2	0.77	0
	Delhi	594280	96275	2998	16.20	70	3.11	2
<b>Consolidated</b>		<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>					<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

# COVID 19: National Performance Management indicators

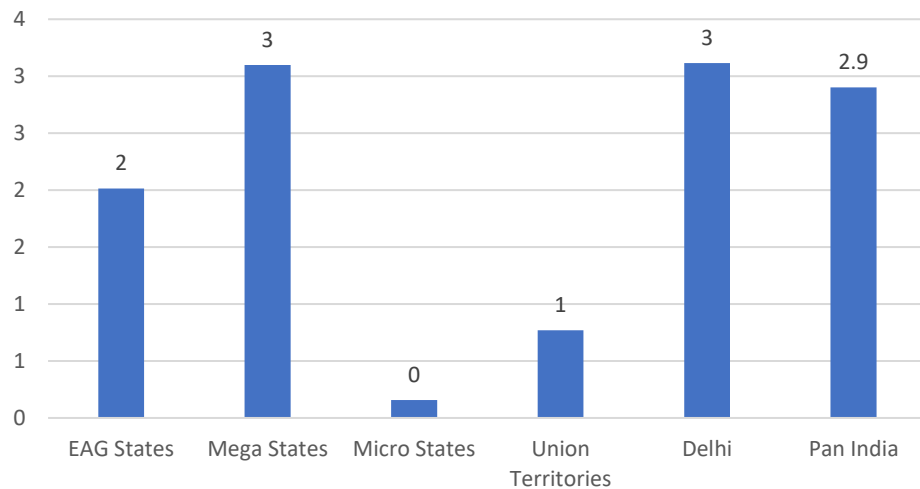
Testing Efficiency Measure: Test Positivity Rate (%)



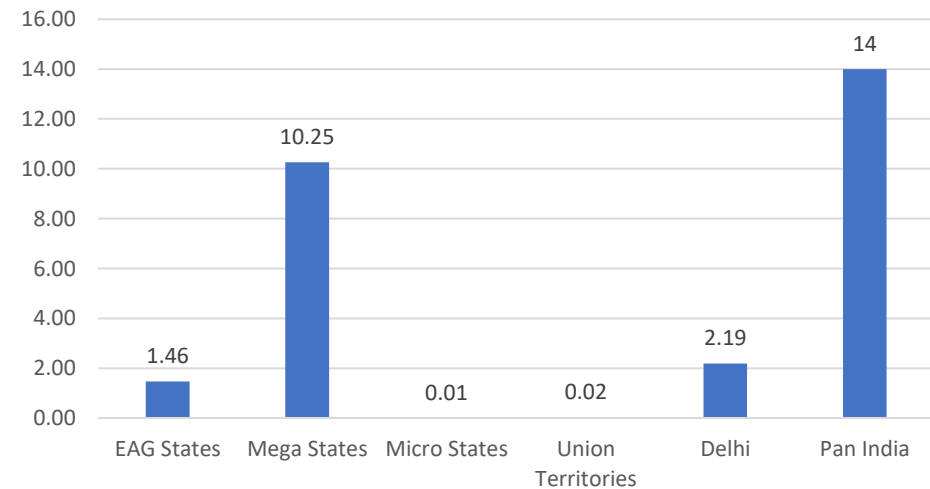
Virus Spread Measure: Test Positivity Per Million Population



Treatment Efficacy Measure: Case Fatality Rate (%)



Impact of Interventions: Death Per Million Population (DPM)



# EAG STATES ZONE REVIEW

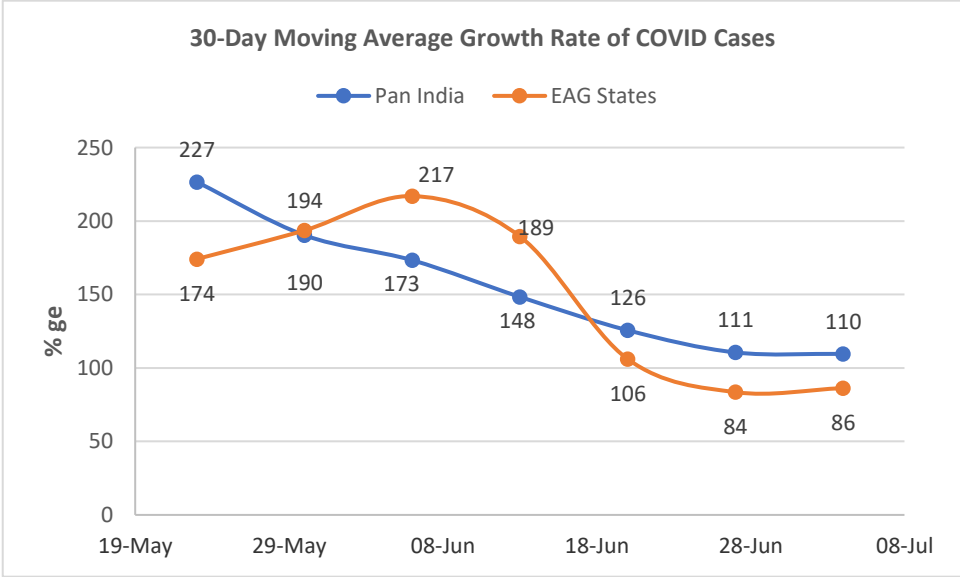
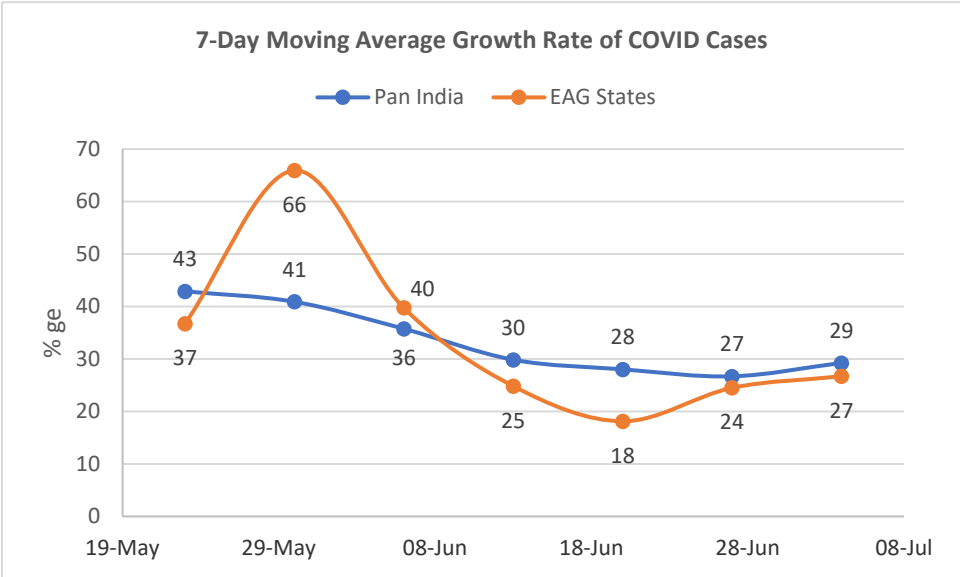
## States:

Assam, Bihar, Chattisgarh, Jharkhand, Madhya Pradesh, Odhisha, Rajasthan, Uttarakhand, Uttar Pradesh

## Key Performance indicators:

- 30 day and 90 day moving average growth rate (Positivity and Mortality)
- Testing Efficiency - Test Positivity Rate (TPR)
- Spread of Virus - Test Positivity Per Million (TPM)
- Treatment Efficiency - Mortality Rate (MR)
- Impact of Measures: Death Per Million (DPM)

# COVID Positivity Growth Rate in EAG States: 7 and 30 day Moving average



# EAG States Scorccard: Lockdown 1.0 – Unlock 2.0

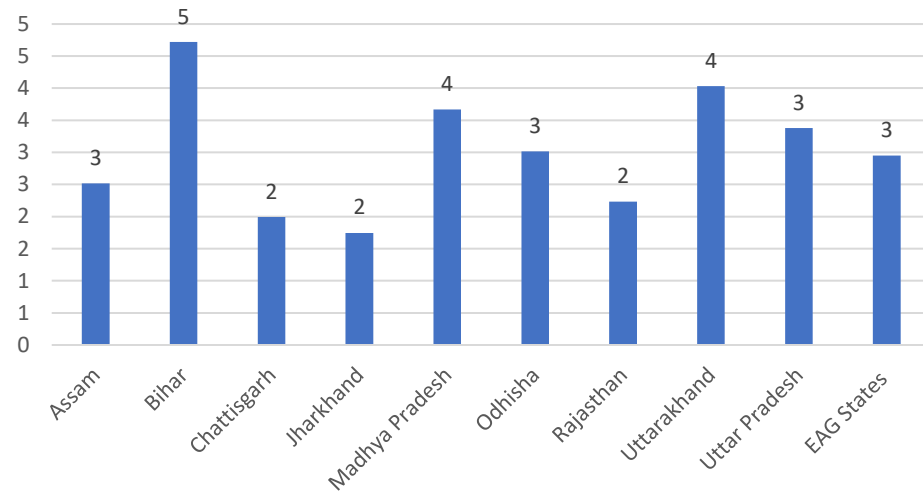


Period	Zone	EAG States	690318715			Performance Indicators			
			Population	Positive Cases	Mortality	Testing Efficiency	Spread of Virus	Treatment Efficacy	Impact of Measures
	Week	Number of Tests	Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)			
Lockdown: 1.0 (1)	1	6 - 11 April	25938	1216	46	4.69	2	3.78	0.07
Lockdown: 1.0 (2)	2	12 - 18 April	62534	2119	55	3.39	3	2.60	0.08
Lockdown: 2.0 (1)	3	19 - 25 April	101140	2505	58	2.48	4	2.32	0.08
Lockdown: 2.0 (2)	4	26 Apr - 02 May	127620	2588	98	2.03	4	3.79	0.14
Lockdown: 3.0 (1)	5	03 - 09 May	148823	3076	137	2.07	4	4.45	0.20
Lockdown: 3.0 (2)	6	10 - 16 May	208169	4968	92	2.39	7	1.85	0.13
Lockdwon: 4.0 (1)	7	17 - 22 May	282977	7746	134	2.74	11	1.73	0.19
Lockdwon: 4.0 (2)	8	24 - 30 May	251023	7397	149	2.95	11	2.01	0.22
Unlock: 1.0 (1)	9	31 May - 06 June	358780	10331	168	2.88	15	1.63	0.24
Unlock: 1.0 (2)	10	07 - 13 June	350077	12111	243	3.46	18	2.01	0.35
Unlock: 1.0 (3)	11	14 - 20 June	395998	12340	279	3.12	18	2.26	0.40
Unlock: 1.0 (4)	12	21 - 27 June	499680	14374	256	2.88	21	1.78	0.37
Unlock: 2.0 (1)	13	28 June - 4 July	561973	18816	292	3.35	27	1.55	0.42
<b>EAG States Weekwise Consolidated</b>			<b>3374732</b>	<b>99587</b>	<b>2007</b>	<b>2.95</b>	<b>144</b>	<b>2.02</b>	<b>2.91</b>
<b>Pan India Consolidated</b>			<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>						<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

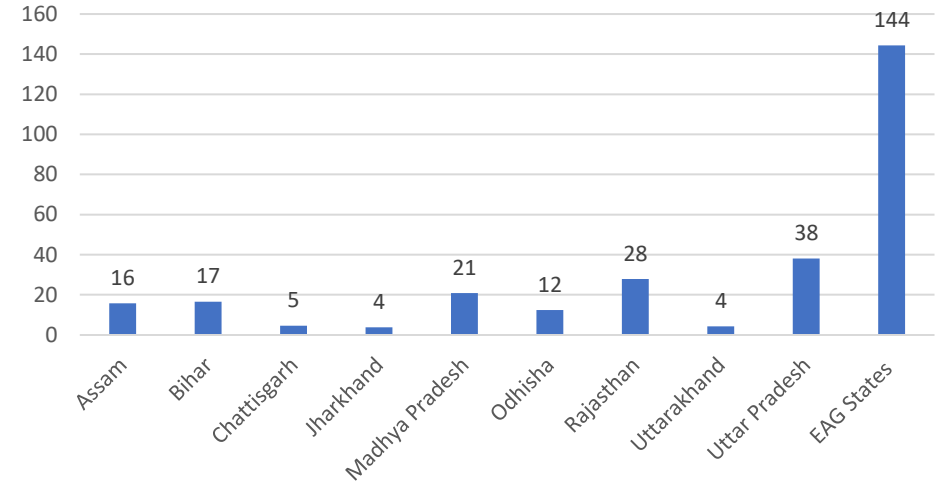
# EAG States: Statewise Scorecard: Lockdown 1.0 – Unlock 1.0

Period	EAG States	Population	690318715		Performance Indicators			
			Number of Tests	Positive Cases	Mortality	Testing Efficiency	Spread of Virus	Treatment Efficacy
		Test Positivity Rate (TPR) %				Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)
06th April - 04th July	Assam	433831	10920	13	2.52	16	0.12	0.02
	Bihar	241980	11415	85	4.72	17	0.74	0.12
	Chattisgarh	157798	3142	10	1.99	5	0.32	0.01
	Jharkhand	151450	2641	19	1.74	4	0.72	0.03
	Madhya Pradesh	393667	14439	586	3.67	21	4.06	0.85
	Odisha	283836	8562	42	3.02	12	0.49	0.06
	Rajasthan	860895	19230	442	2.23	28	2.30	0.64
	Uttarakhand	74200	2992	40	4.03	4	1.34	0.06
	Uttar Pradesh	777075	26246	770	3.38	38	2.93	1.12
<b>EAG Statewise Consolidated</b>		<b>3374732</b>	<b>99587</b>	<b>2007</b>	<b>2.95</b>	<b>144</b>	<b>2.02</b>	<b>3</b>
<b>Pan India Consolidated</b>		<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>					<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

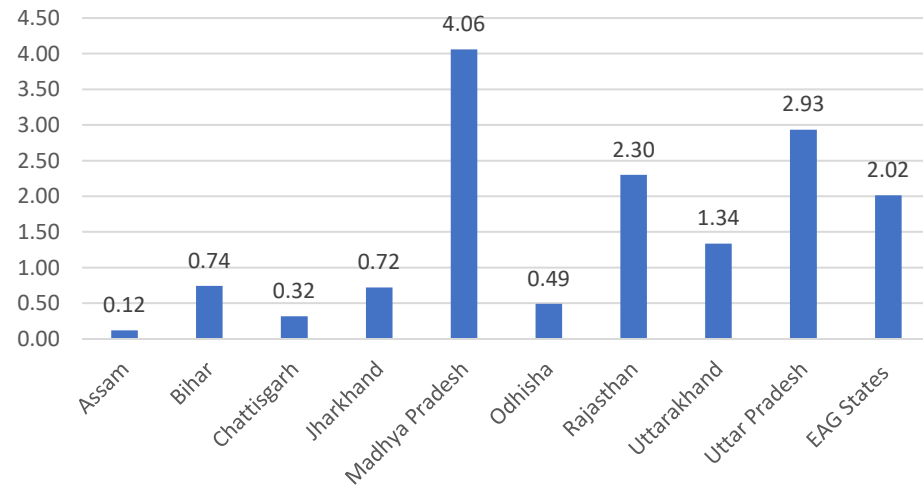
Testing Efficiency Measure: Test Positivity Rate (%) of EAG States



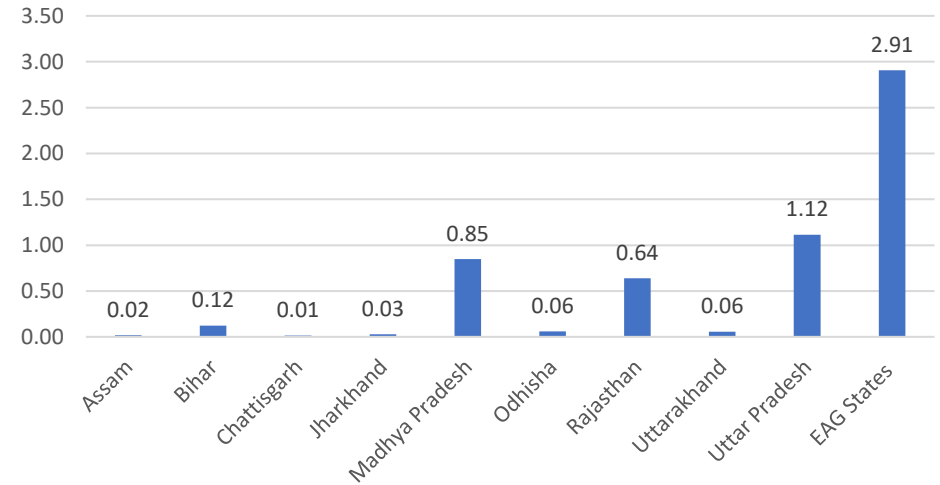
Virus Spread Measure: Test Positivity Per Million Population



Treatment Efficacy Measure: Case Fatality Rate (%)



Impact of Interventions: Death Per Million Population (DPM)





# MEGA STATES ZONE REVIEW

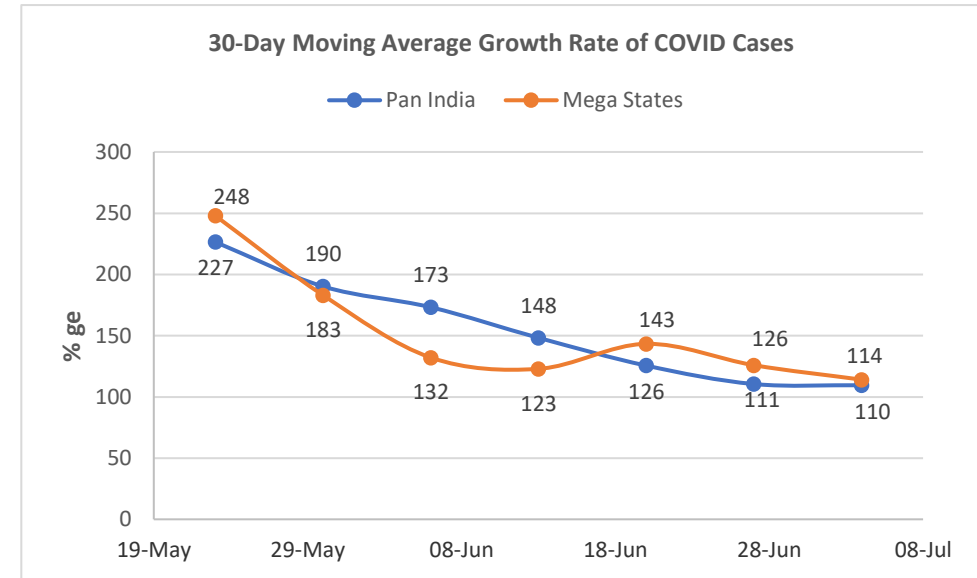
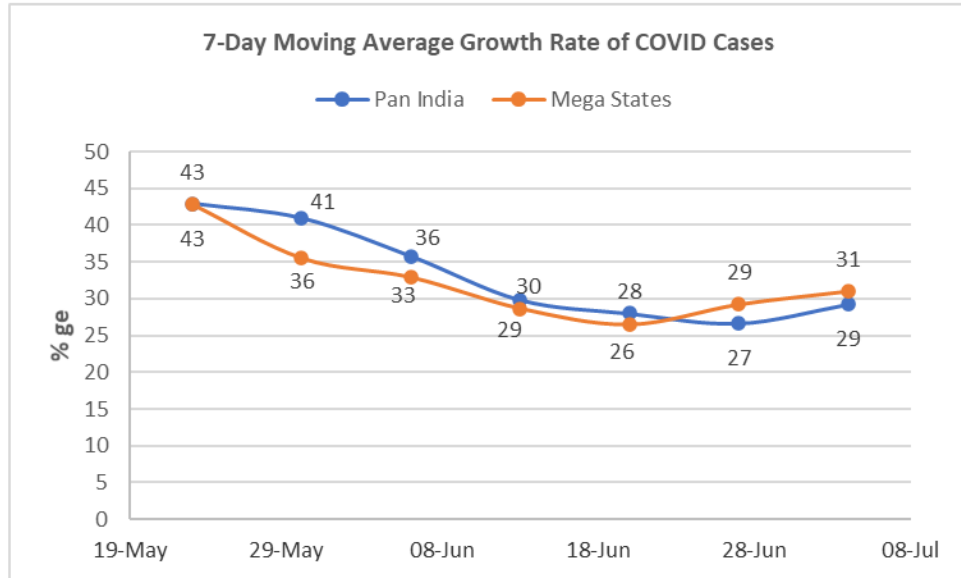
## States

Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Punjab, Tamil Nadu, Telangana, West Bengal

## Key Performance indicators:

- 30 day and 90 day moving average growth rate (Positivity and Mortality)
- Testing Efficiency - Test Positivity Rate (TPR)
- Spread of Virus - Test Positivity Per Million (TPM)
- Treatment Efficiency - Mortality Rate (MR)
- Impact of Measures: Death Per Million (DPM)

# COVID Positivity Growth Rate in Mega States: 7 and 30 day Moving average



# Mega States Scorecard: Lockdown 1.0 – Unlock 2.0

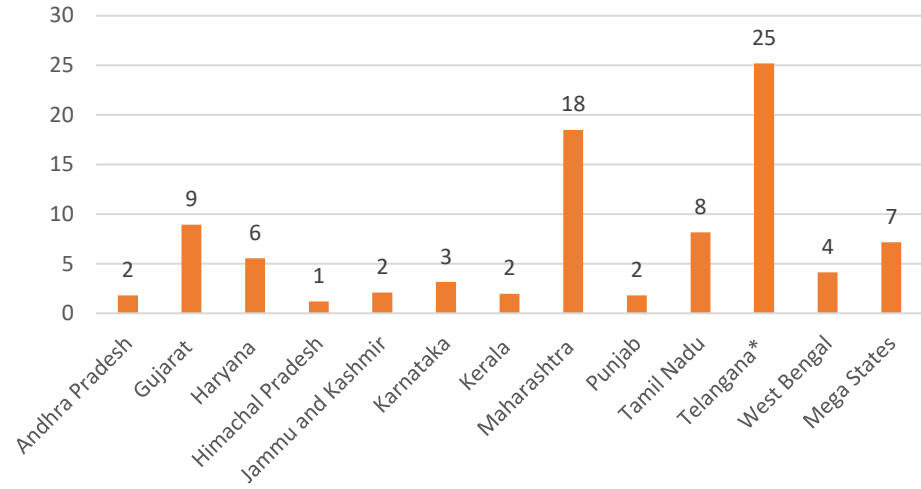
Period	Region	Mega States	Population		Performance Indicators				
			640399786		Testing Efficiency	Spread of Virus	Treatment Efficacy	Impact of Measures	
	Week	Number of Tests	Positive Cases	Mortality	Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)	
Lockdown: 1.0 (1)	1	6 - 11 April	35354	2672	126	7.56	4.17	4.72	0.20
Lockdown: 1.0 (2)	2	12 - 18 April	124575	4655	164	3.74	7.27	3.52	0.26
Lockdown: 2.0 (1)	3	19 - 25 April	204670	7264	270	3.55	11.34	3.72	0.42
Lockdown: 2.0 (2)	4	26 Apr - 02 May	262536	9386	383	3.58	14.66	4.08	0.60
Lockdown: 3.0 (1)	5	03 - 09 May	356787	17472	633	4.90	27.28	3.62	0.99
Lockdown: 3.0 (2)	6	10 - 16 May	370617	20709	643	5.59	32.34	3.10	1.00
Lockdwon: 4.0 (1)	7	17 - 22 May	500514	28494	745	5.69	44.49	2.61	1.16
Lockdwon: 4.0 (2)	8	24 - 30 May	454907	27536	857	6.05	43.00	3.11	1.34
Unlock: 1.0 (1)	9	31 May - 06 June	604046	40368	1246	6.68	63.04	3.09	1.95
Unlock: 1.0 (2)	10	7 - 13 June	663671	50265	1495	7.57	78.49	2.97	2.33
Unlock: 1.0 (3)	11	21 - 27 June	773361	57193	2952	7.40	89.31	5.16	4.61
Unlock: 1.0 (4)	12	21 - 27 June	915249	79767	2118	8.72	124.56	2.66	3.31
Unlock: 2.0 (1)	13	28 June - 04 July	1055423	108297	2430	10.26	169.11	2.24	3.79
<b>Mega States Weekwise Consolidated Period</b>			<b>6321710</b>	<b>454078</b>	<b>14062</b>	<b>7.18</b>	<b>709.05</b>	<b>3.10</b>	<b>21.96</b>
<b>Pan India Consolidated</b>			<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>						<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

# Mega States: Statewise Scorecard: Lockdown 1.0 – Unlock 1.0

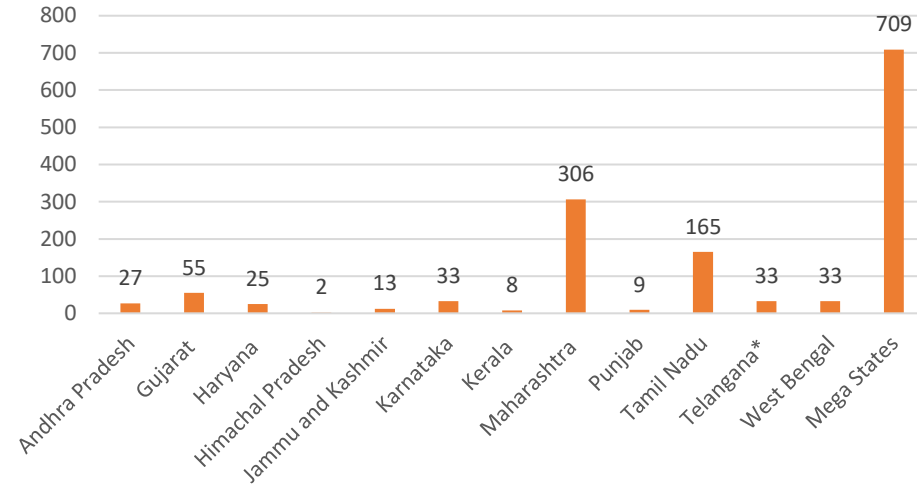


Period	Mega States	Population	640399786		Performance Indicators			
		Number of Tests	Positive Cases	Mortality	Testing Efficiency	Spread of Virus	Treatment Efficacy	Impact of Measures
					Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)
As on 04th July	Andhra Pradesh	970655	17466	218	1.80	27.27	1.25	0.34
	Gujarat	393469	35126	1908	8.93	54.85	5.43	2.98
	Haryana	291917	16252	258	5.57	25.38	1.59	0.40
	Himachal Pradesh	85508	1026	10	1.20	1.60	0.97	0.02
	Jammu and Kashmir	383181	8019	126	2.09	12.52	1.57	0.20
	Karnataka	674822	21336	332	3.16	33.32	1.56	0.52
	Kerala	249001	4893	24	1.97	7.64	0.49	0.04
	Maharashtra	1060779	196162	8579	18.49	306.31	4.37	13.40
	Punjab	328755	6003	179	1.83	9.37	2.98	0.28
	Tamil Nadu	1293429	105655	1437	8.17	164.98	1.36	2.24
	Telangana	84183	21197	273	25.18	33.10	1.29	0.43
	West Bengal	506011	20943	718	4.14	32.70	3.43	1.12
<b>Mega State: Statewise Consolidated</b>		<b>6321710</b>	<b>454078</b>	<b>14062</b>	<b>7.18</b>	<b>709.05</b>	<b>3.10</b>	<b>21.96</b>
<b>Pan India Consolidated</b>		<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>					<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

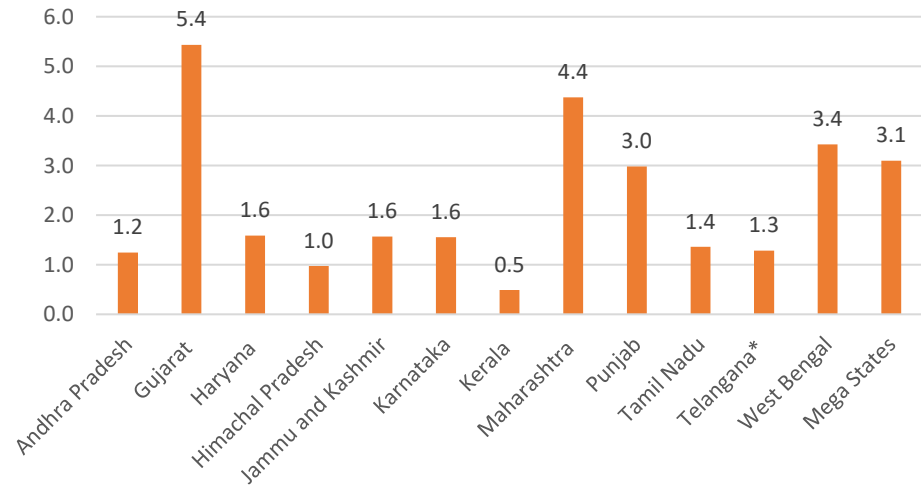
Testing Efficiency Measure: Test Positivity Rate (%) of Mega States



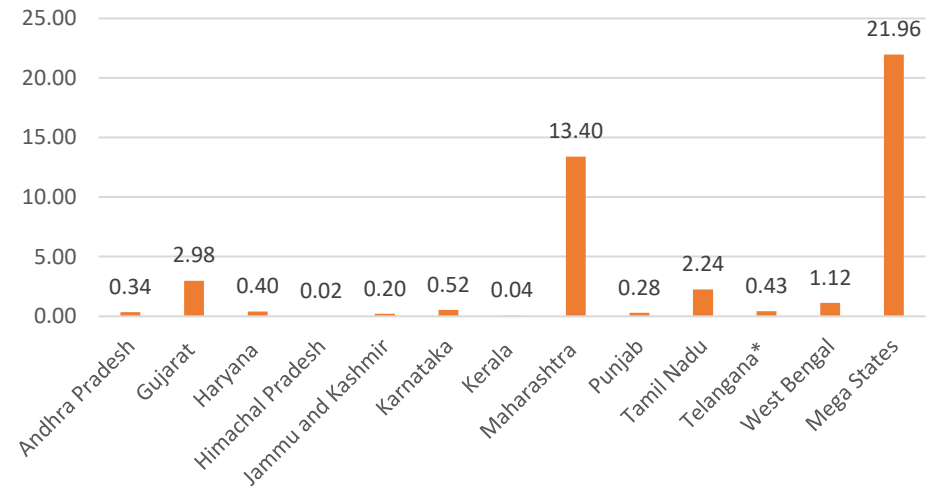
Virus Spread Measure: Test Positivity Per Million Population



Treatment Efficacy Measure: Case Fatality Rate (%)



Impact of Interventions: Death Per Million Population (DPM)



\* Discrepancies in publicly available data

# MICRO STATES ZONE REVIEW

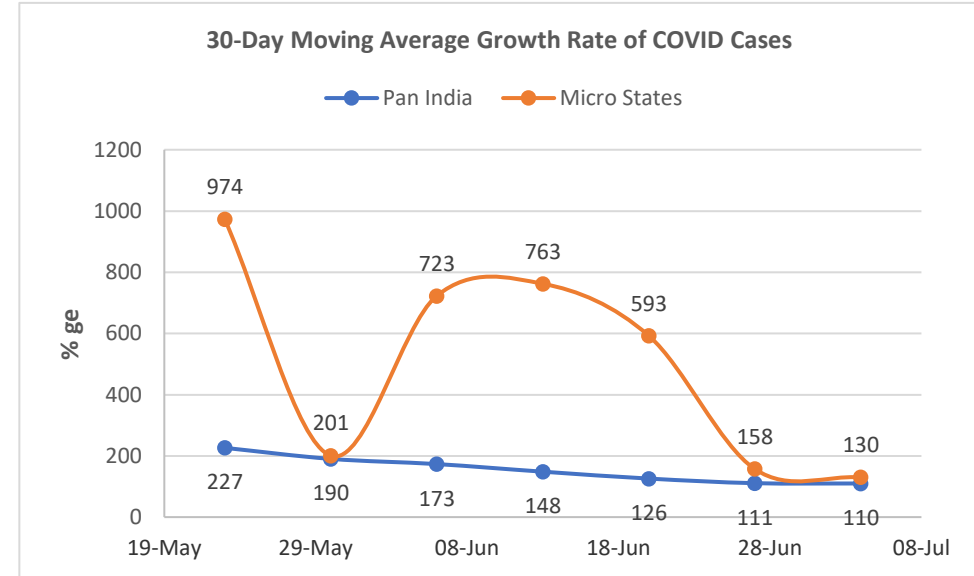
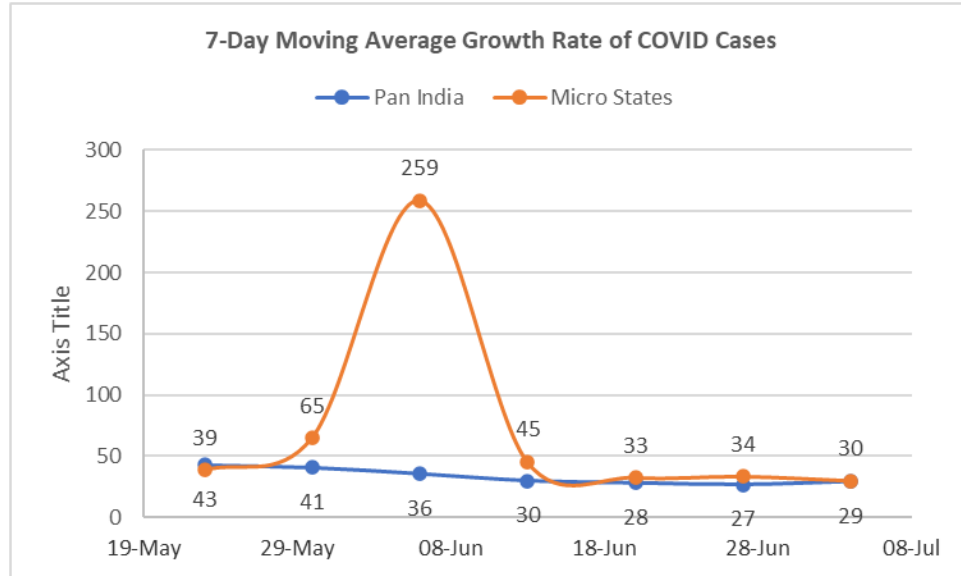
## States

Arunachal Pradesh, Goa, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura

## Key Performance indicators

- 30 day and 90 day moving average growth rate (Positivity and Mortality)
- Testing Efficiency - Test Positivity Rate (TPR)
- Spread of Virus - Test Positivity Per Million (TPM)
- Treatment Efficiency - Mortality Rate (MR)
- Impact of Measures: Death Per Million (DPM)

# COVID Positivity Growth Rate in Micro States: 7 and 30 day Moving average



# MICRO States Scorecard: Lockdown 1.0 – Unlock 2.0

Period	Region	Micro States	Population			Performance Indicators			
			17963947			Testing Efficiency	Spread of Virus	Treatment Efficacy	Impact of Measures
	Week		Number of Tests	Positive Cases	Mortality	Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)
Lockdown: 1.0 (1)	1	6 - 11 April	40	2	0	5.00	0.11	0.00	0.00
Lockdown: 1.0 (2)	2	12 - 18 April	662	11	1	1.66	0.61	0.15	0.06
Lockdown: 2.0 (1)	3	19 - 25 April	1692	1	0	0.06	0.06	0.00	0.00
Lockdown: 2.0 (2)	4	26 Apr - 02 May	1955	14	0	0.72	0.78	0.00	0.00
Lockdown: 3.0 (1)	5	03 - 09 May	7230	136	0	1.88	7.57	0.00	0.00
Lockdown: 3.0 (2)	6	10 - 16 May	10032	40	0	0.40	2.23	0.00	0.00
Lockdown: 4.0 (1)	7	17 - 22 May	11183	82	0	0.73	4.56	0.00	0.00
Lockdown: 4.0 (2)	8	24 - 30 May	18382	147	0	0.80	8.18	0.00	0.00
Unlock: 1.0 (1)	9	31 May - 06 June	37748	955	0	2.53	53.16	0.00	0.00
Unlock: 1.0 (2)	10	7 - 13 June	43208	1084	1	2.51	60.34	0.00	0.06
Unlock: 1.0 (3)	11	14 - 20 June	43490	827	0	1.90	46.04	0.00	0.00
Unlock: 1.0 (4)	12	21 - 27 June	44341	1087	3	2.45	60.51	0.01	0.17
Unlock: 2.0 (1)	13	28 June - 04 July	41521	1318	4	3.17	73.37	0.01	0.22
<b>Micro State: Weekwise consolidated</b>			<b>261484</b>	<b>5704</b>	<b>9</b>	<b>2.18</b>	<b>317.52</b>	<b>0.00</b>	<b>0.50</b>
<b>Pan India Consolidated</b>			<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>						<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

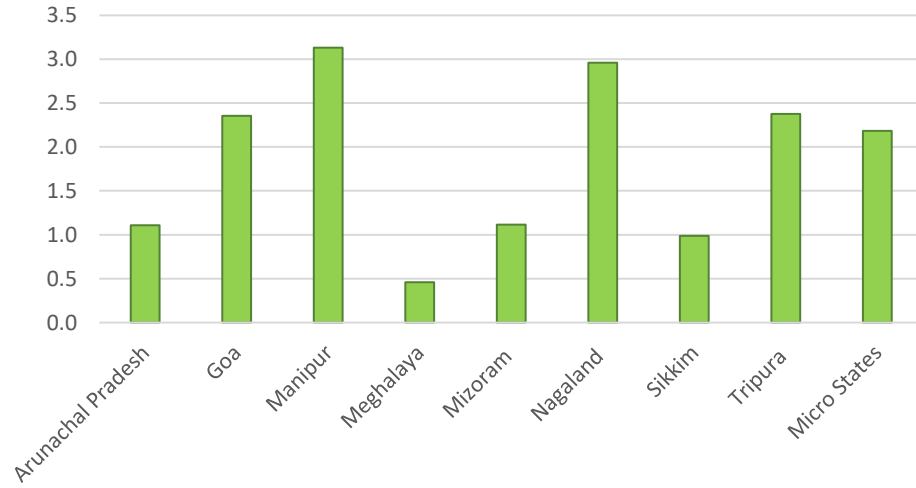


# MICRO States: Statewise Scorecard: Lockdown 1.0 – Unlock 1.0

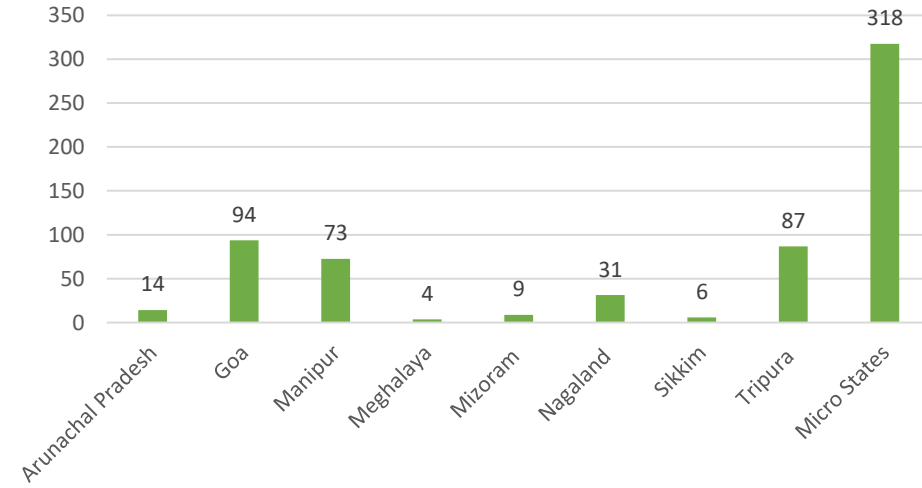


Period	Micro States	Population	Performance Indicators					
			17963947			Testing Efficiency	Spread of Virus	Treatment Efficacy
		Number of Tests	Positive Cases	Mortality	Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)
29 March - 13th June	Arunachal Pradesh	23439	260	1	1.11	14.47	0.00	0.06
	Goa	71548	1685	6	2.36	93.80	0.01	0.33
	Manipur	41672	1304	0	3.13	72.59	0.00	0.00
	Meghalaya	15191	70	1	0.46	3.90	0.01	0.06
	Mizoram	14345	160	0	1.12	8.91	0.00	0.00
	Nagaland	18984	562	0	2.96	31.28	0.00	0.00
	Sikkim	10814	107	0	0.99	5.96	0.00	0.00
	Tripura	65491	1556	1	2.38	86.62	0.00	0.06
<b>Micro State: Statewise Consolidated</b>		<b>261484</b>	<b>5704</b>	<b>9</b>	<b>2.18</b>	<b>317.52</b>	<b>0.00</b>	<b>0.50</b>
<b>Pan India Consolidated</b>		<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>					<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

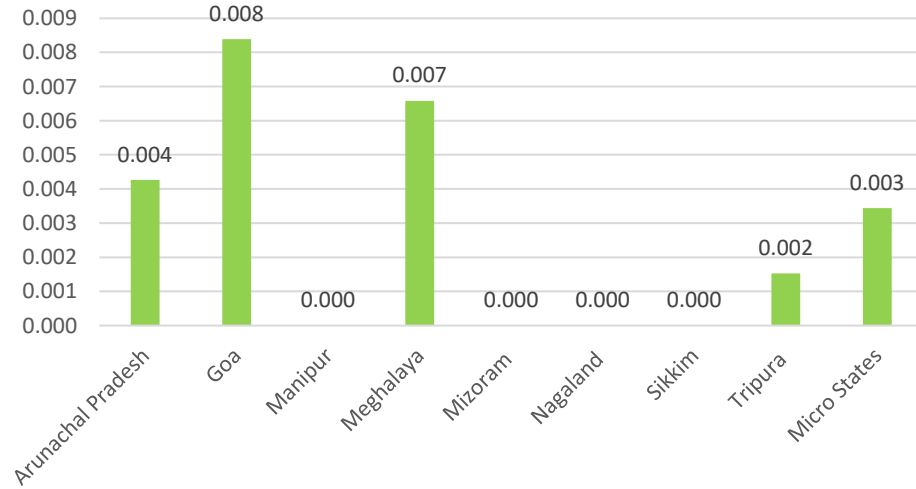
**Testing Efficiency Measure: Test Positivity Rate (%) of Micro States**



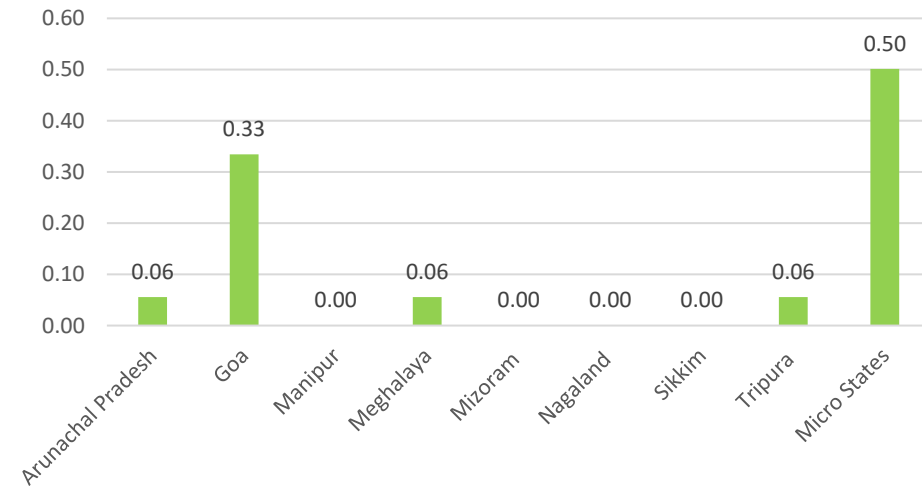
**Virus Spread Measure: Test Positivity Per Million Population**



**Treatment Efficacy Measure: Case Fatality Rate (%)**



**Impact of Interventions: Death Per Million Population (DPM)**



# UNION TERRITORIES REVIEW

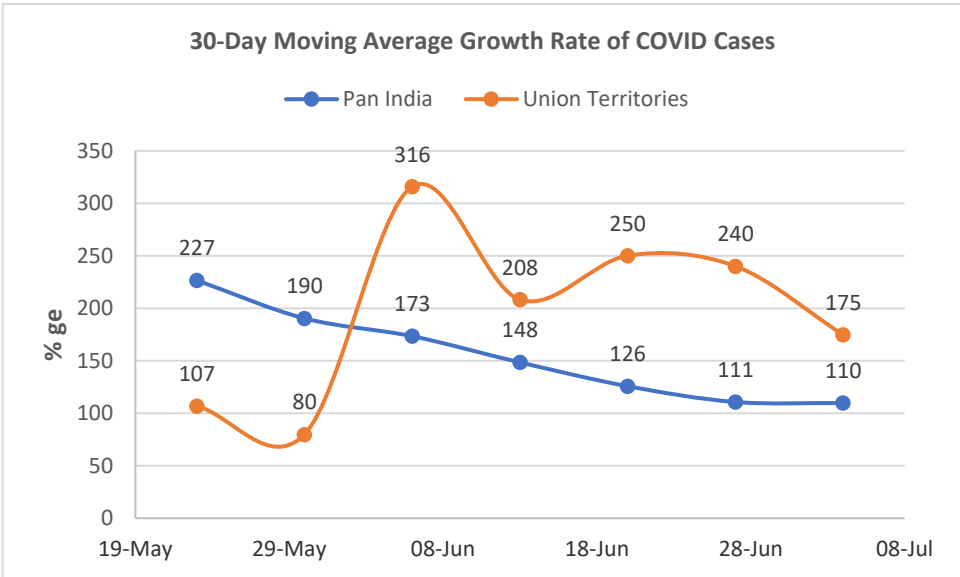
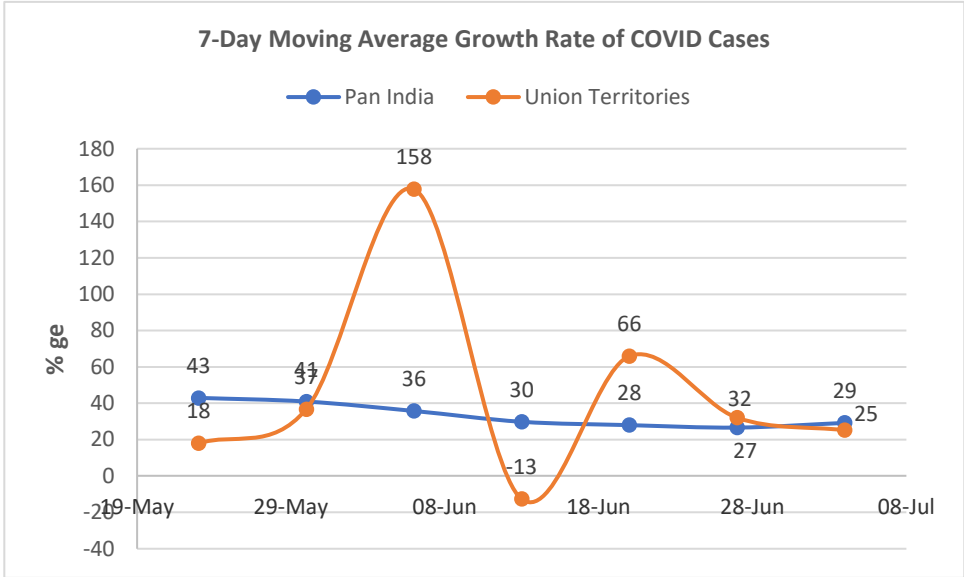
## Union Territories

Andaman & Nicobar, Chandigarh, Dadar & Nagar, Ladakh, and Puducherry.  
(Delhi has been presented separately)

## Key Performance indicators

- 30 day and 90 day moving average growth rate (Positivity and Mortality)
- Testing Efficiency - Test Positivity Rate (TPR)
- Spread of Virus - Test Positivity Per Million (TPM)
- Treatment Efficiency - Mortality Rate (MR)
- Impact of Measures: Death Per Million (DPM)

# COVID Positivity Growth Rate in Union Territories: 7 and 30 day Moving average



# Union Territories Scorecard: Lockdown 1.0 – Unlock 2.0



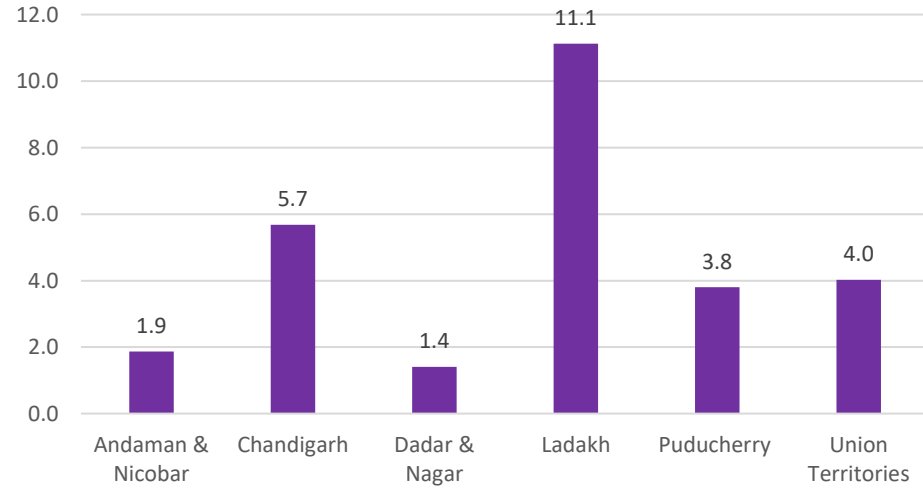
Period	Region	Union Territories (Excluding Delhi)	Population			Performance Indicators			
			3893798			Testing Efficiency	Spread of Virus	Treatment Efficacy	Impact of Measures
	Week		Number of Tests	Positive Cases	Mortality	Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)
Lockdown: 1.0 (1)	1	6 - 11 April	131	5	0	3.82	1.28	0.00	0.00
Lockdown: 1.0 (2)	2	12 - 18 April	442	10	0	2.26	2.57	0.00	0.00
Lockdown: 2.0 (1)	3	19 - 25 April	1449	27	0	1.86	6.93	0.00	0.00
Lockdown: 2.0 (2)	4	26 Apr - 02 May	4414	70	0	1.59	17.98	0.00	0.00
Lockdown: 3.0 (1)	5	03 - 09 May	3176	96	2	3.02	24.65	2.08	0.51
Lockdown: 3.0 (2)	6	10 - 16 May	2783	30	1	1.08	7.70	3.33	0.26
Lockdwon: 4.0 (1)	7	17 - 22 May	5139	102	1	1.98	26.20	0.98	0.26
Lockdwon: 4.0 (2)	8	24 - 30 May	3343	68	0	2.03	17.46	0.00	0.00
Unlock: 1.0 (1)	9	31 May - 06 June	7650	112	2	1.46	28.76	1.79	0.51
Unlock: 1.0 (2)	10	7 - 13 June	12441	460	3	3.70	118.14	0.65	0.77
Unlock: 1.0 (3)	11	14 - 20 June	6366	655	5	10.29	168.22	0.76	1.28
Unlock: 1.0 (4)	12	21 - 27 June	8870	522	3	5.89	134.06	0.57	0.77
Unlock: 2.0 (1)	13	28 June - 04 July	11403	565	4	4.95	145.10	0.71	1.03
<b>Union Territories: Weekwise Consolidated</b>			<b>67607</b>	<b>2722</b>	<b>21</b>	<b>4.03</b>	<b>699.06</b>	<b>0.77</b>	<b>5.39</b>
<b>Pan India Consolidated</b>			<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>						<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

# Union Territory wise Scorecard: Lockdown 1.0 – Unlock 2.0

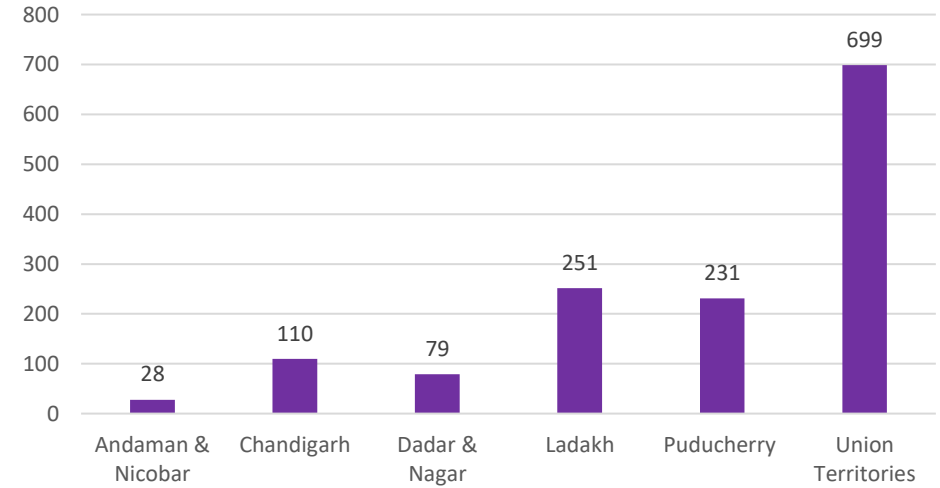


Period	Union Territories (Excluding Delhi)	Population	3893798		Performance Indicators			
					Testing Efficiency	Spread of Virus	Treatment Efficacy	Impact of Measures
		Number of Tests	Positive Cases	Mortality	Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)
29 March - 20th June	Andaman & Nicobar	5842	109	0	1.87	27.99	0.00	0.00
	Chandigarh	7513	427	6	5.68	109.66	0.08	1.54
	Dadar & Nagar	21818	308	0	1.41	79.10	0.00	0.00
	Ladakh	8799	979	1	11.13	251.43	0.01	0.26
	Puducherry	23635	899	14	3.80	230.88	0.06	3.60
<b>Union Territories: Consolidated</b>		<b>67607</b>	<b>2722</b>	<b>21</b>	<b>4.03</b>	<b>699.06</b>	<b>0.03</b>	<b>5.39</b>
<b>Pan India Consolidated</b>		<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>					<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

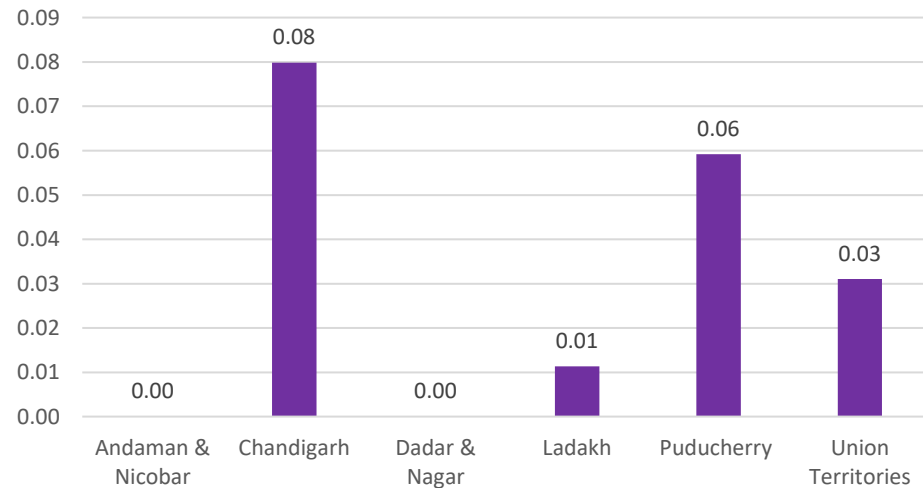
Testing Efficiency Measure: Test Positivity Rate (%) of Micro States



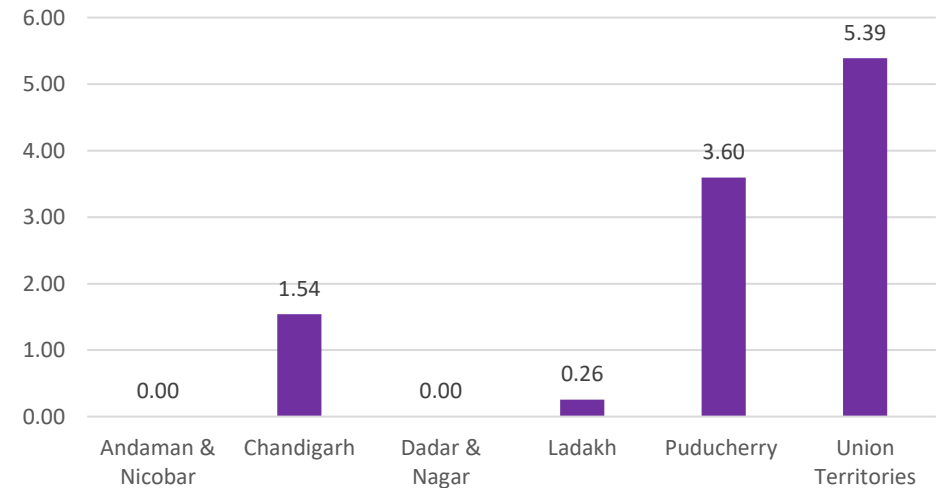
Virus Spread Measure: Test Positivity Per Million Population



Treatment Efficacy Measure: Case Fatality Rate (%)



Impact of Interventions: Death Per Million Population (DPM)



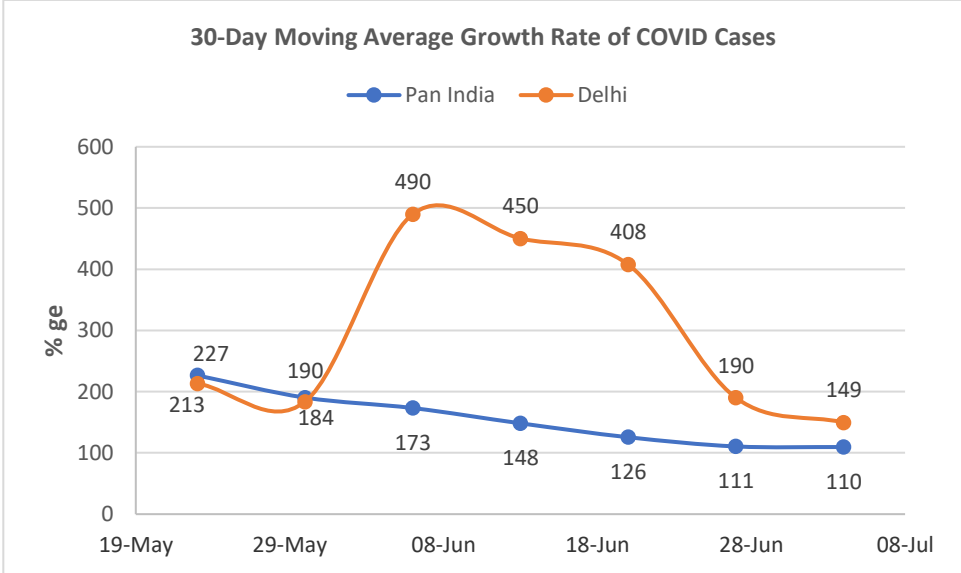
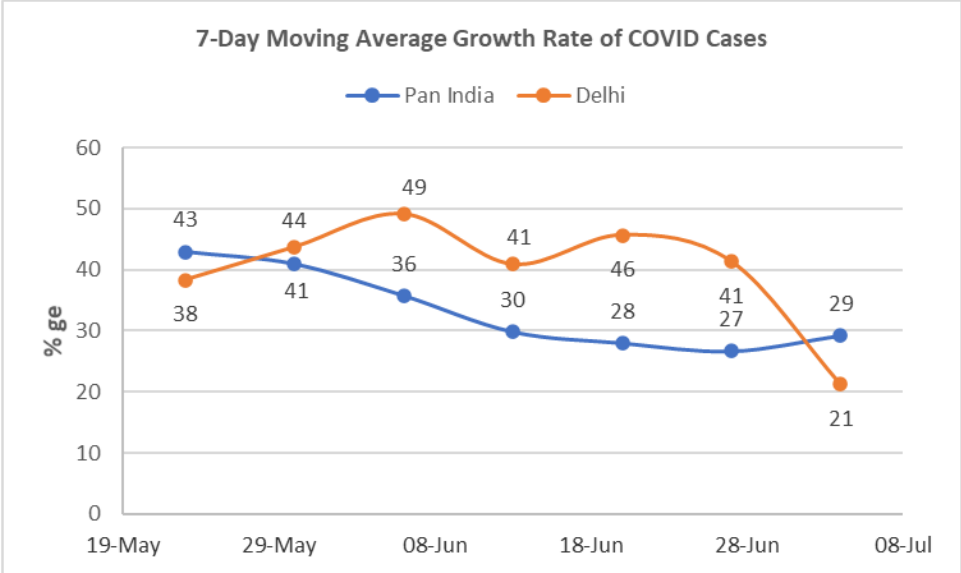
# DELHI PERFORMANCE

## Key Performance indicators

- 30 day and 90 day moving average growth rate (Positivity and Mortality)
- Testing Efficiency - Test Positivity Rate (TPR)
- Spread of Virus - Test Positivity Per Million (TPM)
- Treatment Efficiency - Mortality Rate (MR)
- Impact of Measures: Death Per Million (DPM)



# COVID Positivity Growth Rate in Delhi: 7 and 30 day Moving average



# Delhi Scorecard: Lockdown 1.0 – Unlock 2.0

Period	State	Delhi	Population			Performance Indicators			
			19814000			Testing Efficiency	Spread of Virus	Treatment Efficacy	Impact of Measures
	Week		Number of Tests	Positive Cases	Mortality	Test Positivity Rate (TPR) %	Test Positivity Per Million (TPM)	Mortality Rate (MR)%	Death Per Million (DPM)
Lockdown: 1.0 (1)	1	6 - 11 April	1741	566	12	32.51	28.57	2.12	0.61
Lockdown: 1.0 (2)	2	12 - 18 April	10571	824	24	7.79	41.59	2.91	1.21
Lockdown: 2.0 (1)	3	19 - 25 April	13236	732	11	5.53	36.94	1.50	0.56
Lockdown: 2.0 (2)	4	26 Apr - 02 May	11706	1497	10	12.79	75.55	0.67	0.50
Lockdown: 3.0 (1)	5	03 - 09 May	26016	2420	4	9.30	122.14	0.17	0.20
Lockdown: 3.0 (2)	6	10 - 16 May	46619	2791	61	5.99	140.86	2.19	3.08
Lockdwn: 4.0 (1)	7	17 - 22 May	33886	3663	113	10.81	184.87	3.08	5.70
Lockdwn: 4.0 (2)	8	24 - 30 May	36866	5131	155	13.92	258.96	3.02	7.82
Unlock: 1.0 (1)	9	31 May - 06 June	40134	9105	345	22.69	459.52	3.79	17.41
Unlock: 1.0 (2)	10	7 - 13 June	36366	11304	510	31.08	570.51	4.51	25.74
Unlock: 1.0 (3)	11	14 - 20 June	68670	17788	861	25.90	897.75	4.84	43.45
Unlock: 1.0 (4)	12	21 - 27 June	126427	23442	446	18.54	1183.10	1.90	22.51
Unlock: 2.0 (1)	13	28 June - 04 July	142042	17012	446	11.98	858.58	2.62	22.51
<b>Delhi: Consolidated</b>			<b>594280</b>	<b>96275</b>	<b>2998</b>	<b>16.20</b>	<b>4858.94</b>	<b>3.11</b>	<b>151.31</b>
<b>Mega Cities: Consolidated</b>			<b>1397968</b>	<b>301549</b>	<b>10900</b>	<b>22</b>	<b>2841</b>	<b>3.61</b>	<b>103</b>
<b>Pan India Consolidated</b>			<b>10619813</b>	<b>658366</b>	<b>19097</b>	<b>6.20</b>	<b>480</b>	<b>2.90</b>	<b>14</b>
<b>Club of nations having over 100K COVID Cases as on 7 July 2020</b>						<b>7.60</b>	<b>2945</b>	<b>4.72</b>	<b>139</b>

# Districts with high mortality

Selection Criteria: District with 10+ COVID Deaths with any one of the following:

1. 10 and above deaths per million population (DPM)
2. 7-day moving average fatality growth rate above 40%
3. 30-Day moving average fatality growth rate above 150%

# Districts with high score on parameters related to Mortality

State	District	Category	Score
Andhra Pradesh	Kurnool	CFR above 5%	33
Andhra Pradesh	Krishna	DPM above 10	15
Andhra Pradesh	Chittoor	7-Day-Moving-Fatality-Above-40%	67
Andhra Pradesh	Krishna	30-Day-Moving-Fatality-Above-150%	152

State	District	Category	Score
Bihar	Patna	7-Day-Moving-Fatality-Above-40%	140
Bihar	Patna	30-Day-Moving-Fatality-Above-150%	500

State	District	Category	Score
Haryana	Gurugram	DPM above 10	65
Haryana	Faridabad	DPM above 10	49
Haryana	Sonipat	DPM above 10	12
Haryana	Gurugram	30-Day-Moving-Fatality-Above-150%	296
Haryana	Faridabad	30-Day-Moving-Fatality-Above-150%	218
Haryana	Sonipat	30-Day-Moving-Fatality-Above-150%	200

State	District	Category	Score
Jammu & Kashmir	Shopiyan	DPM above 10	49
Jammu & Kashmir	Kulgam	DPM above 10	38
Jammu & Kashmir	Srinagar	DPM above 10	24
Jammu & Kashmir	Baramulla	DPM above 10	22
Jammu & Kashmir	Anantnag	7-Day-Moving-Fatality-Above-40%	67
Jammu & Kashmir	Baramulla	7-Day-Moving-Fatality-Above-40%	47
Jammu & Kashmir	Shopiyan	30-Day-Moving-Fatality-Above-150%	160

State	District	Category	Score
Gujarat	Patan	CCFR above 10%	11
Gujarat	Aravalli	CCFR above 10%	10
Gujarat	Aravalli	CFR above 5%	9
Gujarat	Panchmahal	CFR above 5%	7
Gujarat	Patan	CFR above 5%	7
Gujarat	Kheda	CFR above 5%	6
Gujarat	Banaskantha	CFR above 5%	5
Gujarat	Surendranagar	CFR above 5%	5
Gujarat	Anand	CFR above 5%	5
Gujarat	Surat	DPM above 10	29
Gujarat	Vadodara	DPM above 10	27
Gujarat	Gandhinagar	DPM above 10	21
Gujarat	Aravalli	DPM above 10	20
Gujarat	Patan	DPM above 10	12
Gujarat	Rajkot	DPM above 10	10
Gujarat	Kheda	7-Day-Moving-Fatality-Above-40%	120
Gujarat	Rajkot	7-Day-Moving-Fatality-Above-40%	117
Gujarat	Surendranagar	7-Day-Moving-Fatality-Above-40%	100
Gujarat	Surendranagar	30-Day-Moving-Fatality-Above-150%	233
Gujarat	Rajkot	30-Day-Moving-Fatality-Above-150%	160

# Districts with high score on parameters related to Mortality

State	District	Category	Score
Karnataka	Bidar	DPM above 10	16
Karnataka	Ballari	DPM above 10	14
Karnataka	Ballari	7-Day-Moving-Fatality-Above-40%	240
Karnataka	Dakshina Kannada	7-Day-Moving-Fatality-Above-40%	150
Karnataka	Dharwad	7-Day-Moving-Fatality-Above-40%	120
Karnataka	Vijayapura	7-Day-Moving-Fatality-Above-40%	57
Karnataka	Bidar	7-Day-Moving-Fatality-Above-40%	47
Karnataka	Kalaburagi	7-Day-Moving-Fatality-Above-40%	47
Karnataka	Ballari	30-Day-Moving-Fatality-Above-150%	3300
Karnataka	Dharwad	30-Day-Moving-Fatality-Above-150%	450
Karnataka	Bidar	30-Day-Moving-Fatality-Above-150%	367
Karnataka	Dakshina Kannada	30-Day-Moving-Fatality-Above-150%	233

State	District	Category	Score
Madhya Pradesh	Ujjain	CFR above 5%	8
Madhya Pradesh	Burhanpur	CFR above 5%	6
Madhya Pradesh	Khandwa	CFR above 5%	5
Madhya Pradesh	Sagar	CFR above 5%	5
Madhya Pradesh	Indore	CFR above 5%	5
Madhya Pradesh	Indore	DPM above 10	74
Madhya Pradesh	Bhopal	DPM above 10	44
Madhya Pradesh	Ujjain	DPM above 10	36
Madhya Pradesh	Burhanpur	DPM above 10	30
Madhya Pradesh	Khandwa	DPM above 10	13

State	District	Category	Score
Maharashtra	Other States	CCFR above 10%	100
Maharashtra	Solapur	CCFR above 10%	15
Maharashtra	Jalgaon	CCFR above 10%	11
Maharashtra	Other States	CFR above 5%	23
Maharashtra	Solapur	CFR above 5%	9
Maharashtra	Jalgaon	CFR above 5%	7
Maharashtra	Latur	CFR above 5%	5
Maharashtra	Akola	CFR above 5%	5
Maharashtra	Thane	DPM above 10	113
Maharashtra	Pune	DPM above 10	89
Maharashtra	Aurangabad	DPM above 10	76
Maharashtra	Solapur	DPM above 10	68
Maharashtra	Jalgaon	DPM above 10	63
Maharashtra	Akola	DPM above 10	47
Maharashtra	Palghar	DPM above 10	41
Maharashtra	Raigad	DPM above 10	40
Maharashtra	Nashik	DPM above 10	37
Maharashtra	Ratnagiri	DPM above 10	17

# Districts with high score on parameters related to Mortality

State	District	Category	Score
Maharashtra	Satara	DPM above 10	16
Maharashtra	Jalna	DPM above 10	12
Maharashtra	Amravati	DPM above 10	10
Maharashtra	Jalna	7-Day-Moving-Fatality-Above-40%	100
Maharashtra	Thane	7-Day-Moving-Fatality-Above-40%	54
Maharashtra	Osmanabad	7-Day-Moving-Fatality-Above-40%	50
Maharashtra	Latur	7-Day-Moving-Fatality-Above-40%	47
Maharashtra	Buldhana	30-Day-Moving-Fatality-Above-150%	333
Maharashtra	Jalna	30-Day-Moving-Fatality-Above-150%	300
Maharashtra	Osmanabad	30-Day-Moving-Fatality-Above-150%	300
Maharashtra	Yavatmal	30-Day-Moving-Fatality-Above-150%	267
Maharashtra	Thane	30-Day-Moving-Fatality-Above-150%	195
Maharashtra	Latur	30-Day-Moving-Fatality-Above-150%	175
Maharashtra	Palghar	30-Day-Moving-Fatality-Above-150%	154

State	District	Category	Score
Odisha	Ganjam	7-Day-Moving-Fatality-Above-40%	133
Odisha	Ganjam	30-Day-Moving-Fatality-Above-150%	320

State	District	Category	Score
Punjab	Amritsar	CFR above 5%	5
Punjab	Amritsar	DPM above 10	19
Punjab	Sangrur	30-Day-Moving-Fatality-Above-150%	1300
Punjab	Amritsar	30-Day-Moving-Fatality-Above-150%	167

State	District	Category	Score
Telangana	Unknown	CFR above 5%	57

State	District	Category	Score
Rajasthan	Other state	CCFR above 10%	42
Rajasthan	Other state	CFR above 5%	23
Rajasthan	Jaipur	DPM above 10	25
Rajasthan	Bharatpur	DPM above 10	15
Rajasthan	Jodhpur	DPM above 10	14
Rajasthan	Kota	DPM above 10	12
Rajasthan	Dholpur	7-Day-Moving-Fatality-Above-40%	150
Rajasthan	Dholpur	30-Day-Moving-Fatality-Above-150%	900
Rajasthan	Bikaner	30-Day-Moving-Fatality-Above-150%	220
Rajasthan	Bharatpur	30-Day-Moving-Fatality-Above-150%	160

State	District	Category	Score
Tamil Nadu	Madurai	DPM above 10	46
Tamil Nadu	Chengalpattu	DPM above 10	43
Tamil Nadu	Thiruvallur	DPM above 10	23
Tamil Nadu	Ramanathapuram	DPM above 10	14
Tamil Nadu	Ramanathapuram	7-Day-Moving-Fatality-Above-40%	375
Tamil Nadu	Madurai	7-Day-Moving-Fatality-Above-40%	185
Tamil Nadu	Kancheepuram	7-Day-Moving-Fatality-Above-40%	67
Tamil Nadu	Tiruvannamalai	7-Day-Moving-Fatality-Above-40%	56
Tamil Nadu	Chengalpattu	7-Day-Moving-Fatality-Above-40%	48
Tamil Nadu	Ramanathapuram	30-Day-Moving-Fatality-Above-150%	1800
Tamil Nadu	Madurai	30-Day-Moving-Fatality-Above-150%	1800
Tamil Nadu	Kancheepuram	30-Day-Moving-Fatality-Above-150%	400
Tamil Nadu	Chengalpattu	30-Day-Moving-Fatality-Above-150%	383
Tamil Nadu	Tiruvannamalai	30-Day-Moving-Fatality-Above-150%	367
Tamil Nadu	Viluppuram	30-Day-Moving-Fatality-Above-150%	325
Tamil Nadu	Thiruvallur	30-Day-Moving-Fatality-Above-150%	300

# Districts with high score on parameters related to Mortality

State	District	Category	Score
Uttar Pradesh	Jhansi	CCFR above 10%	21
Uttar Pradesh	Meerut	CCFR above 10%	10
Uttar Pradesh	Jhansi	CFR above 5%	10
Uttar Pradesh	Meerut	CFR above 5%	8
Uttar Pradesh	Agra	CFR above 5%	7
Uttar Pradesh	Meerut	DPM above 10	26
Uttar Pradesh	Agra	DPM above 10	21
Uttar Pradesh	Gautam Buddha Nagar	DPM above 10	17
Uttar Pradesh	Ghaziabad	DPM above 10	13
Uttar Pradesh	Hapur	DPM above 10	12
Uttar Pradesh	Jhansi	DPM above 10	12
Uttar Pradesh	Kanpur Nagar	DPM above 10	12
Uttar Pradesh	Firozabad	DPM above 10	10
Uttar Pradesh	Etawah	7-Day-Moving-Fatality-Above-40%	100
Uttar Pradesh	Bareilly	7-Day-Moving-Fatality-Above-40%	100
Uttar Pradesh	Varanasi	7-Day-Moving-Fatality-Above-40%	69
Uttar Pradesh	Jhansi	7-Day-Moving-Fatality-Above-40%	50
Uttar Pradesh	Etawah	30-Day-Moving-Fatality-Above-150%	1300
Uttar Pradesh	Bareilly	30-Day-Moving-Fatality-Above-150%	600
Uttar Pradesh	Varanasi	30-Day-Moving-Fatality-Above-150%	350
Uttar Pradesh	Ghaziabad	30-Day-Moving-Fatality-Above-150%	210
Uttar Pradesh	Hapur	30-Day-Moving-Fatality-Above-150%	180
Uttar Pradesh	Jhansi	30-Day-Moving-Fatality-Above-150%	167
Uttar Pradesh	Lucknow	30-Day-Moving-Fatality-Above-150%	156

State	District	Category	Score
Uttarakhand	Dehradun	DPM above 10	15

State	District	Category	Score
West Bengal	Darjeeling	DPM above 10	76
West Bengal	Howrah	DPM above 10	22
West Bengal	North 24 Parganas	DPM above 10	11
West Bengal	Darjeeling	30-Day-Moving-Fatality-Above-150%	233

# High Positivity Districts

Selection Criteria: District with 10+ COVID Deaths with any one of the following:

1. 300+ Positive cases per million population
2. 7-day moving average growth rate of Positive cases above 30%
3. 30-Day moving average growth rate of positive case above 160%



# Districts with high score on parameters related to Case Positivity

State	District	Category	Score
Andhra Pradesh	Kurnool	Positivity / Mn above 300	581
Andhra Pradesh	Krishna	Positivity / Mn above 300	372
Andhra Pradesh	Guntur	Positivity / Mn above 300	342
Andhra Pradesh	Chittoor	30-Day-Positivity-Above-160%	257
Andhra Pradesh	Guntur	30-Day-Positivity-Above-160%	173
Andhra Pradesh	Chittoor	7-Day-Positivity-Above-30%	55
Andhra Pradesh	Guntur	7-Day-Positivity-Above-30%	51
Andhra Pradesh	Kurnool	7-Day-Positivity-Above-30%	40
Andhra Pradesh	Krishna	7-Day-Positivity-Above-30%	34

State	District	Category	Score
Odisha	Ganjam	Test Positivity Rate above 10%	31

State	District	Category	Score
Bihar	Patna	7-Day-Positivity-Above-30%	71
Bihar	Patna	30-Day-Positivity-Above-160%	204

State	District	Category	Score
Jammu & Kashmir	Shopiyan	Positivity / Mn above 300	3185
Jammu & Kashmir	Kulgam	Positivity / Mn above 300	2012
Jammu & Kashmir	Baramulla	Positivity / Mn above 300	998
Jammu & Kashmir	Srinagar	Positivity / Mn above 300	859
Jammu & Kashmir	Anantnag	Positivity / Mn above 300	665

State	District	Category	Score
Gujarat	Vadodara	Positivity / Mn above 300	1374
Gujarat	Surat	Positivity / Mn above 300	940
Gujarat	Gandhinagar	Positivity / Mn above 300	509
Gujarat	Vadodara	Test Positivity Rate above 10%	12
Gujarat	Surat	Test Positivity Rate above 10%	11
Gujarat	Bharuch	30-Day-Positivity-Above-160%	260
Gujarat	Surendranagar	30-Day-Positivity-Above-160%	182
Gujarat	Surendranagar	7-Day-Positivity-Above-30%	56
Gujarat	Rajkot	7-Day-Positivity-Above-30%	53
Gujarat	Patan	7-Day-Positivity-Above-30%	43
Gujarat	Kheda	7-Day-Positivity-Above-30%	41
Gujarat	Bharuch	7-Day-Positivity-Above-30%	37
Gujarat	Surat	7-Day-Positivity-Above-30%	35
Gujarat	Bhavnagar	7-Day-Positivity-Above-30%	34
Gujarat	Banaskantha	7-Day-Positivity-Above-30%	30

State	District	Category	Score
Haryana	Gurugram	Positivity / Mn above 300	3849
Haryana	Faridabad	Positivity / Mn above 300	2411
Haryana	Sonipat	Positivity / Mn above 300	1011
Haryana	Faridabad	Test Positivity Rate above 10%	23
Haryana	Gurugram	Test Positivity Rate above 10%	14
Haryana	Faridabad	30-Day-Positivity-Above-160%	302
Haryana	Sonipat	30-Day-Positivity-Above-160%	174
Haryana	Faridabad	7-Day-Positivity-Above-30%	31

# Districts with high score on parameters related to Case Positivity

State	District	Category	Score
Rajasthan	Jodhpur	Test Positivity Rate above 10%	19

State	District	Category	Score
Karnataka	Kalaburagi	Positivity / Mn above 300	622
Karnataka	Dakshina Kannada	Positivity / Mn above 300	520
Karnataka	Ballari	Positivity / Mn above 300	471
Karnataka	Bidar	Positivity / Mn above 300	426
Karnataka	Ballari	30-Day-Positivity-Above-160%	545
Karnataka	Dharwad	30-Day-Positivity-Above-160%	359
Karnataka	Dakshina Kannada	30-Day-Positivity-Above-160%	313
Karnataka	Dakshina Kannada	7-Day-Positivity-Above-30%	91
Karnataka	Ballari	7-Day-Positivity-Above-30%	84
Karnataka	Dharwad	7-Day-Positivity-Above-30%	74
Karnataka	Vijayapura	7-Day-Positivity-Above-30%	52
Karnataka	Bidar	7-Day-Positivity-Above-30%	31

State	District	Category	Score
Kerala	Kannur	7-Day-Positivity-Above-30%	38

State	District	Category	Score
Madhya Pradesh	Indore	Positivity / Mn above 300	1468
Madhya Pradesh	Bhopal	Positivity / Mn above 300	1259
Madhya Pradesh	Burhanpur	Positivity / Mn above 300	534
Madhya Pradesh	Ujjain	Positivity / Mn above 300	435

State	District	Category	Score
Odisha	Ganjam	Positivity / Mn above 300	585
Odisha	Ganjam	7-Day-Positivity-Above-30%	73
Odisha	Ganjam	30-Day-Positivity-Above-160%	205

State	District	Category	Score
Punjab	Amritsar	Positivity / Mn above 300	380
Punjab	Jalandhar	Positivity / Mn above 300	380
Punjab	Pathankot	Positivity / Mn above 300	358
Punjab	Sangrur	Positivity / Mn above 300	318
Punjab	Sangrur	30-Day-Positivity-Above-160%	282
Punjab	Ludhiana	30-Day-Positivity-Above-160%	205
Punjab	Sangrur	7-Day-Positivity-Above-30%	45
Punjab	Ludhiana	7-Day-Positivity-Above-30%	37

State	District	Category	Score
Rajasthan	Jodhpur	Positivity / Mn above 300	800
Rajasthan	Bharatpur	Positivity / Mn above 300	681
Rajasthan	Dholpur	Positivity / Mn above 300	613
Rajasthan	Jaipur	Positivity / Mn above 300	525
Rajasthan	Kota	Positivity / Mn above 300	373
Rajasthan	Bikaner	7-Day-Positivity-Above-30%	78
Rajasthan	Dholpur	30-Day-Positivity-Above-160%	573
Rajasthan	Bikaner	30-Day-Positivity-Above-160%	260

# Districts with high score on parameters related to Case Positivity

State	District	Category	Score
Tamil Nadu	Madurai	Positivity / Mn above 300	3026
Tamil Nadu	Chengalpattu	Positivity / Mn above 300	2486
Tamil Nadu	Thiruvallur	Positivity / Mn above 300	1233
Tamil Nadu	Tiruvannamalai	Positivity / Mn above 300	955
Tamil Nadu	Ramanathapuram	Positivity / Mn above 300	955
Tamil Nadu	Kancheepuram	Positivity / Mn above 300	601
Tamil Nadu	Viluppuram	Positivity / Mn above 300	311
Tamil Nadu	Thiruvallur	Test Positivity Rate above 10%	33
Tamil Nadu	Chengalpattu	Test Positivity Rate above 10%	32
Tamil Nadu	Kancheepuram	Test Positivity Rate above 10%	18
Tamil Nadu	Madurai	Test Positivity Rate above 10%	16
Tamil Nadu	Ramanathapuram	Test Positivity Rate above 10%	13
Tamil Nadu	Ramanathapuram	30-Day-Positivity-Above-160%	857
Tamil Nadu	Madurai	30-Day-Positivity-Above-160%	823
Tamil Nadu	Tiruvannamalai	30-Day-Positivity-Above-160%	270
Tamil Nadu	Kancheepuram	30-Day-Positivity-Above-160%	258
Tamil Nadu	Thiruvallur	7-Day-Positicity-Above-30%	1248
Tamil Nadu	Madurai	7-Day-Positicity-Above-30%	122
Tamil Nadu	Ramanathapuram	7-Day-Positicity-Above-30%	99
Tamil Nadu	Tiruvannamalai	7-Day-Positicity-Above-30%	45
Tamil Nadu	Kancheepuram	7-Day-Positicity-Above-30%	43
Tamil Nadu	Viluppuram	7-Day-Positicity-Above-30%	41

State	District	Category	Score
Uttarakhand	Dehradun	Positivity / Mn above 300	437

State	District	Category	Score
Uttar Pradesh	GB Nagar	Positivity / Mn above 300	1605
Uttar Pradesh	Hapur	Positivity / Mn above 300	595
Uttar Pradesh	Ghaziabad	Positivity / Mn above 300	432
Uttar Pradesh	Meerut	Positivity / Mn above 300	332
Uttar Pradesh	Etawah	7-Day-Positicity-Above-30%	142
Uttar Pradesh	Jhansi	7-Day-Positicity-Above-30%	61
Uttar Pradesh	Ghaziabad	7-Day-Positicity-Above-30%	52
Uttar Pradesh	Bareilly	7-Day-Positicity-Above-30%	47
Uttar Pradesh	Varanasi	7-Day-Positicity-Above-30%	42
Uttar Pradesh	Gorakhpur	7-Day-Positicity-Above-30%	38
Uttar Pradesh	Prayagraj	7-Day-Positicity-Above-30%	36
Uttar Pradesh	Ghaziabad	30-Day-Positivity-Above-160%	237
Uttar Pradesh	Jhansi	30-Day-Positivity-Above-160%	211
Uttar Pradesh	Hapur	30-Day-Positivity-Above-160%	196
Uttar Pradesh	GB Nagar	30-Day-Positivity-Above-160%	190
Uttar Pradesh	Bareilly	30-Day-Positivity-Above-160%	177
Uttar Pradesh	Etawah	30-Day-Positivity-Above-160%	172
Uttar Pradesh	Gorakhpur	30-Day-Positivity-Above-160%	169

State	District	Category	Score
West Bengal	Darjeeling	Positivity / Mn above 300	4371
West Bengal	Howrah	Positivity / Mn above 300	621
West Bengal	North 24 Parganas	Positivity / Mn above 300	354
West Bengal	South 24 Parganas	30-Day-Positivity-Above-160%	229
West Bengal	Darjeeling	30-Day-Positivity-Above-160%	207
West Bengal	South 24 Parganas	7-Day-Positicity-Above-30%	47
West Bengal	North 24 Parganas	7-Day-Positicity-Above-30%	39
West Bengal	Darjeeling	7-Day-Positicity-Above-30%	37

# Districts with high score on parameters related to Case Positivity

State	District	Category	Score
Maharashtra	Thane	Positivity / Mn above 300	4144
Maharashtra	Pune	Positivity / Mn above 300	2859
Maharashtra	Palghar	Positivity / Mn above 300	2399
Maharashtra	Raigad	Positivity / Mn above 300	2120
Maharashtra	Aurangabad	Positivity / Mn above 300	1694
Maharashtra	Jalgaon	Positivity / Mn above 300	952
Maharashtra	Akola	Positivity / Mn above 300	887
Maharashtra	Nashik	Positivity / Mn above 300	808
Maharashtra	Solapur	Positivity / Mn above 300	719
Maharashtra	Ratnagiri	Positivity / Mn above 300	433
Maharashtra	Satara	Positivity / Mn above 300	424
Maharashtra	Nagpur	Positivity / Mn above 300	359
Maharashtra	Jalna	Positivity / Mn above 300	349
Maharashtra	Raigad	Test Positivity Rate above 10%	116
Maharashtra	Aurangabad	Test Positivity Rate above 10%	53
Maharashtra	Thane	Test Positivity Rate above 10%	38
Maharashtra	Jalgaon	Test Positivity Rate above 10%	28
Maharashtra	Nashik	Test Positivity Rate above 10%	21
Maharashtra	Palghar	Test Positivity Rate above 10%	19
Maharashtra	Solapur	Test Positivity Rate above 10%	18
Maharashtra	Pune	Test Positivity Rate above 10%	17
Maharashtra	Dhule	Test Positivity Rate above 10%	13

Zone	State	District	Category	Score
Mega State	Maharashtra	Jalna	Test Positivity Rate above 10%	12
Mega State	Maharashtra	Dhule	30-Day-Positivity-Above-160%	249
Mega State	Maharashtra	Palghar	30-Day-Positivity-Above-160%	224
Mega State	Maharashtra	Raigad	30-Day-Positivity-Above-160%	214
Mega State	Maharashtra	Nashik	30-Day-Positivity-Above-160%	166
Mega State	Maharashtra	Thane	30-Day-Positivity-Above-160%	165
Mega State	Maharashtra	Jalna	30-Day-Positivity-Above-160%	165
Mega State	Maharashtra	Dhule	7-Day-Positicity-Above-30%	86
Mega State	Maharashtra	Raigad	7-Day-Positicity-Above-30%	72
Mega State	Maharashtra	Ahmednagar	7-Day-Positicity-Above-30%	67
Mega State	Maharashtra	Jalna	7-Day-Positicity-Above-30%	63
Mega State	Maharashtra	Buldhana	7-Day-Positicity-Above-30%	60
Mega State	Maharashtra	Palghar	7-Day-Positicity-Above-30%	58
Mega State	Maharashtra	Latur	7-Day-Positicity-Above-30%	58
Mega State	Maharashtra	Thane	7-Day-Positicity-Above-30%	48
Mega State	Maharashtra	Aurangabad	7-Day-Positicity-Above-30%	44
Mega State	Maharashtra	Nashik	7-Day-Positicity-Above-30%	44
Mega State	Maharashtra	Jalgaon	7-Day-Positicity-Above-30%	43
Mega State	Maharashtra	Satara	7-Day-Positicity-Above-30%	39
Mega State	Maharashtra	Osmanabad	7-Day-Positicity-Above-30%	30
Mega State	Maharashtra	Ratnagiri	7-Day-Positicity-Above-30%	30

# Dedication to the Nation

PHFI – Proxima Pandemic & Epidemic Management System (PPEMS) is a joint development of Public Health Foundation of India (PHFI) and Proxima. PPEMS provides customised dashboard for respective stakeholders.

Over last 12 weeks, PPEMS has been tested with the publicly available COVID 19 data. The system provides sharper insights on the emerging pattern of the Pandemic and systematically highlights regions which needs immediate and specific attention.

PPEMS is the voluntary efforts of researchers and analysts at PHFI and Proxima in dedication to the nation

## Initiative intent and disclaimer

1. This initiative is a voluntary initiative of PHFI and Proxima as part of Project Jeevan Raksh in dedication to the nation.
2. This initiative does not involve any kind of commercial value proposition to any of the partner institutions or to the individuals involved
3. The data collated and analysed based on secondary data. The primary sources are:  
<https://www.mohfw.gov.in/> <https://www.covid19india.org/> [www.google.com](http://www.google.com); [www.wikipedia.org](http://www.wikipedia.org);  
<https://www.worldometers.info/coronavirus/#countries>
4. The user of this presentation is advised to revalidate the shared data from competent authorised agencies before using for any other purpose.

For more details, send email to:

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**Thank you**