

COVID 19: Wave 3: Global Trend Analysis & Projection

13 September 2021

Project: Jeevan Raksha is an initiative of Proxima which focuses on Advocacy, Analytics, and Awareness in the area of healthcare.

Mission: Actively contribute towards Right to Health as a constitutional right of Indian citizens.

Project: Jeevan Raksha has been in the forefront of providing sharper analytical insights on emerging patterns of COVID 19 in India to the Central / State Government administrations, media, and general public. The contribution is appreciated by many state Governments.

Project: Jeevan Raksha acknowledges the technical support and guidance of Public Health Foundation of India (**PHFI**)



satyam-eva jayate, Truth alone triumphs, was adopted as the national motto of India on 26 January 1950

In COVID management, **Truthiness** in the disclosed data (data integrity) of Testing, Positivity, Recovery, and Fatality; or **truthfulness** of a individual about his/her (including family) health condition, is vital for India's efforts to save lives of the people.

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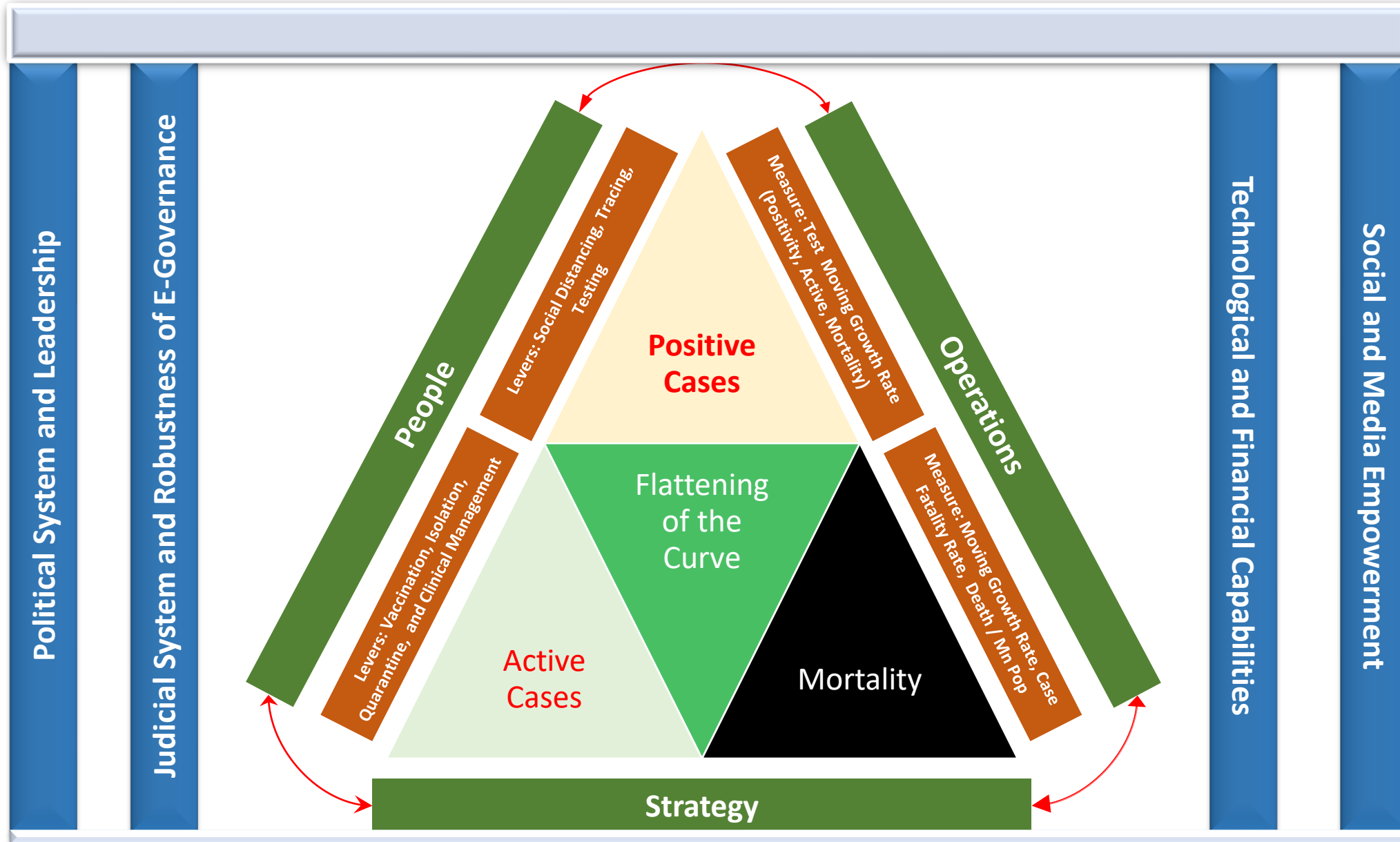
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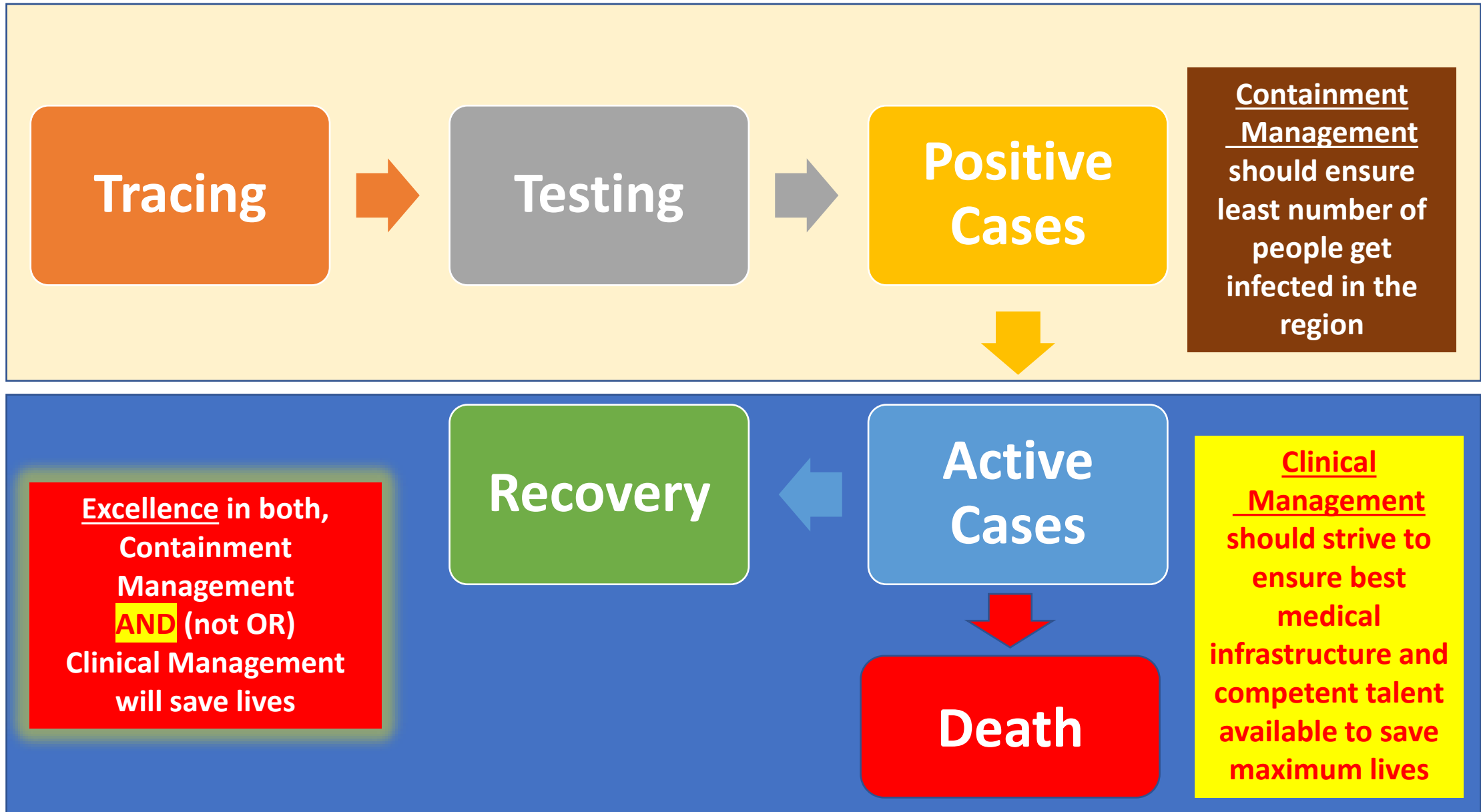
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Proxima Pandemic & Epidemic Management System (PPMS)

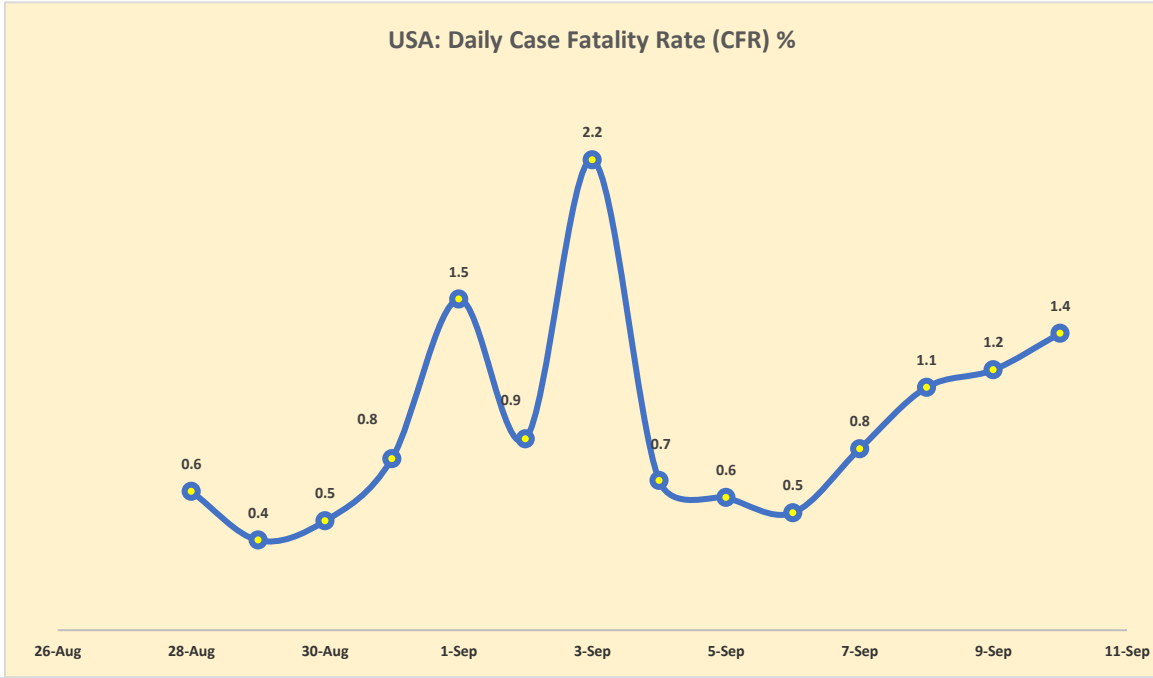
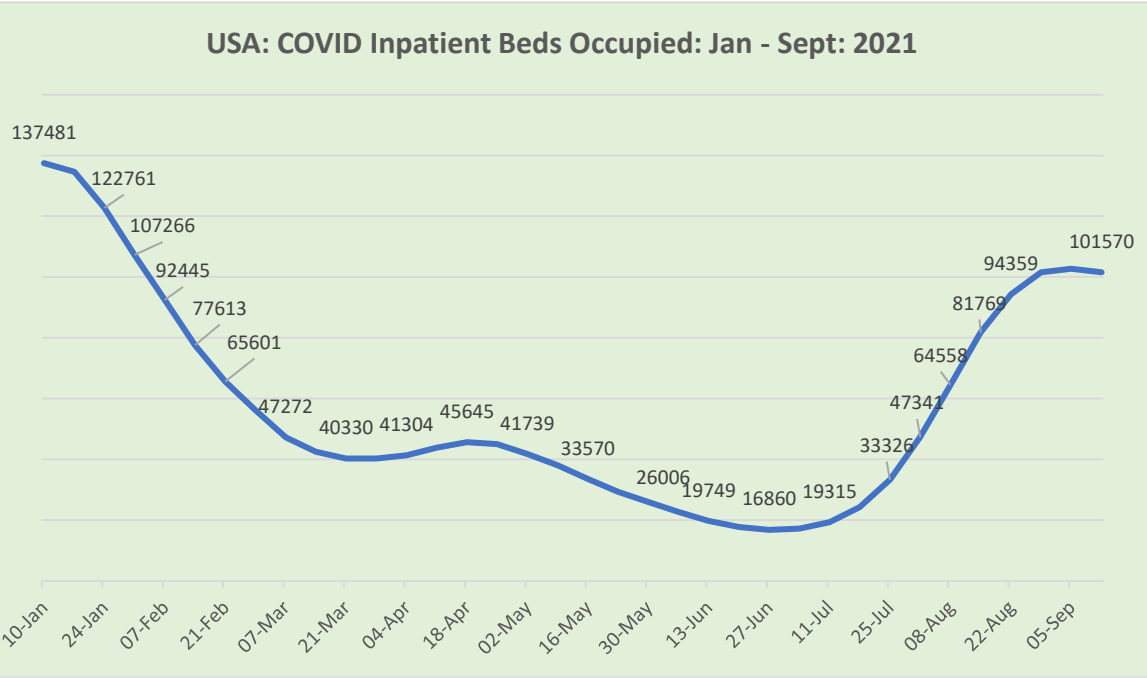
JEEVAN RAKSHA
PROTECTING LIVES



Qualitative and Quantitative Testing will determine the fate of the people



**So far in the USA, Vaccination has neither contributed towards reduction in hospitalisation or mortality!
infact post vaccination of 50% of its population, rate of hospitalisation and mortality have increased!**



Even though the daily caseload in September 2021 is ~ 50% of January 2021, shockingly the number of COVID inpatient beds occupancy in US remains almost the same.

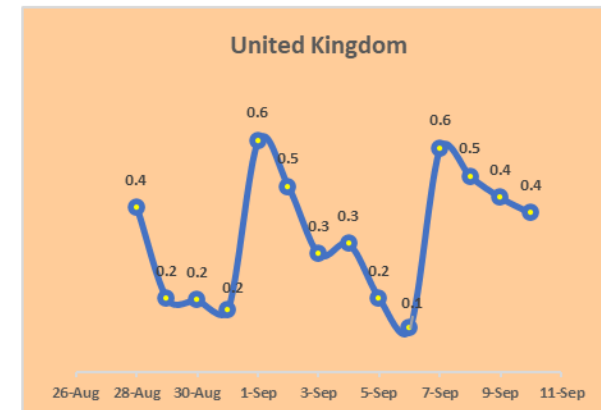
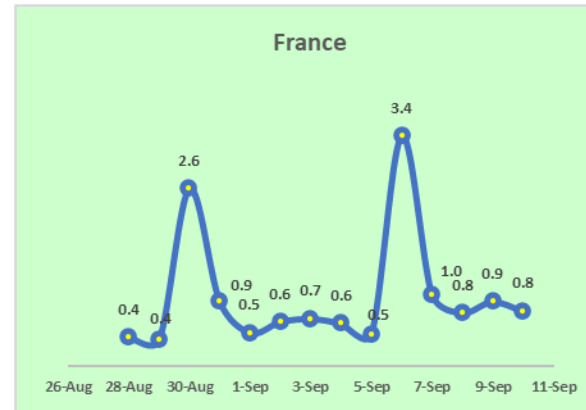
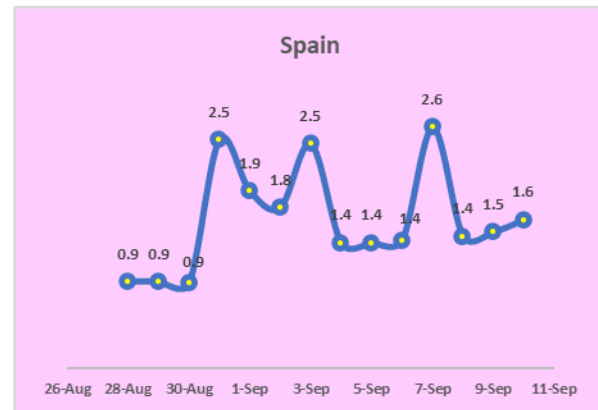
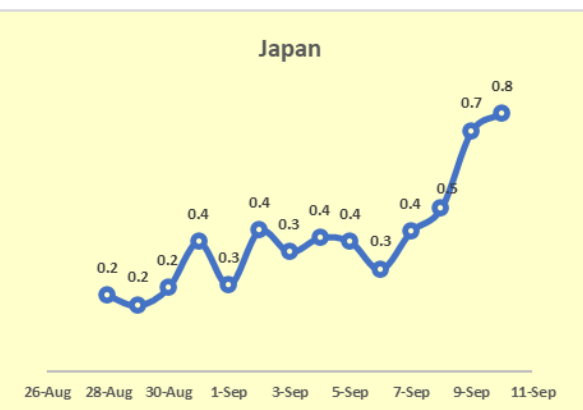
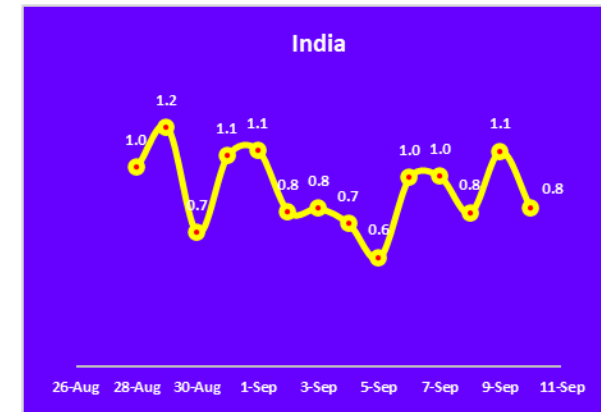
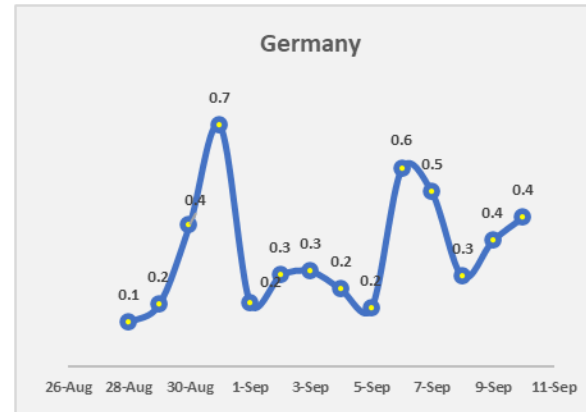
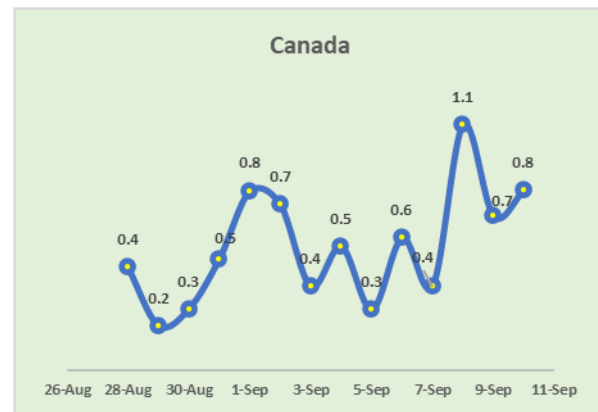
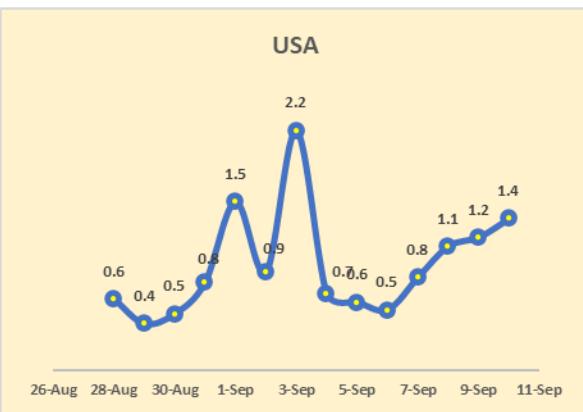
- On 31st Jan 2021, USA had fully vaccinated only 1.7% of its total population, during the same week, 107266 COVID inpatient beds were occupied. The average daily caseload during the week was 196K.
- On 12th September 2021, USA had fully vaccinated 53% of its total population, during the same week, 101570 COVID inpatient beds were occupied, almost at same level of January wherein less than 2% of the population was vaccinated. The average daily caseload during the week is 103K

during 28 August – 10 September 2021, Daily Case Fatality Rate (CFR) has more than doubled, from 0.6% to 1.4%!

Vaccine Efficacy data needs revalidation! No doubt GAVI – The Vaccine Alliance is aggressively propagating Booster dose!

3rd Wave: Nations which have fully vaccinated more than 50% of the Population, except UK, Daily Case Fatality Rate (%) witnessing sharp increase over the last 2 weeks!

- USA, France, Canada Daily CFR: **DOUBLED**, Japan and Germany **QUADRUPLED**.
- 1 Dose, 2 Dose, now Booster Dose, after this?
- India has fully vaccinated only 12% of its population, but daily CFR is declining. Primary reasons could be: 40% of the population are partially vaccinated, young population, and Under-Reporting of COVID cases and deaths by some of the severely affected states



Odisha: End of Wave 2: Best State for COVID Management

Odisha: No trace of UNDER – REPORTING.
The Political leadership and the state administration are truthful to its people

COVID Management Performance: End of 2nd Wave		
Mega States	PPM	DPM
Telangana	16793	99
Gujarat	12926	158
West Bengal	15615	186
Andhra Pradesh	37616	259
Jammu & Kashmir	24007	324
Haryana	27323	343
Tamil Nadu	33794	451
Himachal Pradesh	28910	485
Punjab	19938	546
Karnataka	43813	555
Kerala	121422	625
Maharashtra	52712	1121
Mega States	36540	490
India	24211	323

Odisha: Excellence in Containment Management: Timely and right Testing leading to quicker tracing and isolation of people when the infection is mild

COVID Management Performance: End of 2nd Wave		
EAG States	PPM	DPM
Bihar	5816	77
Uttar Pradesh	7186	96
Rajasthan	11775	110
Madhya Pradesh	9282	123
Jharkhand	9018	133
Assam	16692	161
Odisha	21897	176
Chattisgarh	34135	461
Uttarakhand	30503	657
EAG States	10846	133
India	24211	323

- PPM: Positive Cases Per Million Population
- DPM: Deaths Per Million Population

COVID Management Performance: End of 2nd Wave		
Union Territory	PPM	DPM
Dadra & Nagar Haveli	17332	6
Andaman & Nicobar	1946	33
Lakshadweep	24818	122
Chandigarh	56234	704
Ladakh	71275	716
Puducherry	88168	1288
Union Territory	30687	389
India	24211	323

Odisha: Voluntarily identified and reconciled death toll

COVID Management Performance: End of 2nd Wave		
North East States	PPM	DPM
Arunachal Pradesh	12869	65
Mizoram	43953	148
Nagaland	9076	188
Sikkim	44188	546
Manipur	37718	584
Meghalaya	34617	598
Tripura	67396	647
North East States	28194	334
India	24211	323

COVID Management Performance: End of 2nd Wave		
States	PPM	DPM
Delhi	76862	1341
Goa	110178	2027
India	24211	323

Odisha: Excellence in Clinical Management: Timely tracing and isolation has led to relatively lower DPM

India: 40% districts still don't have a single RT-PCR lab for Covid-19 testing

- **India scenario:**
 - At least one RT-PCR facility exists in every district of Kerala, Maharashtra, Rajasthan, Tamil Nadu, Karnataka, Goa, Gujarat, and union territories Lakshadweep and Ladakh. In contrast, there are RT-PCR labs in only 8 of Assam's 33 districts; 2 of Arunachal's 25 districts, 2 of Meghalaya's 9 districts, 3 of Nagaland's 3 districts, 2 of Manipur's 16 districts, and just 1 of Mizoram's 11 districts.
 - Outside the North East, 6 other states had more than 60% of districts without RT-PCR labs. In Madhya Pradesh, 35 of 52 districts lacked RT-PCR labs; in Bihar, 25 of 38; in Chhattisgarh, 17 of 28; in Jharkhand, 16 of 24; in Odisha, 18 of 30; and in Jammu and Kashmir, 12 of 20 districts.
 - In the country's most populous state, Uttar Pradesh, 27 out of 75 districts did not have an RT-PCR lab.
 - Most of the districts lacking RT-PCR labs are predominantly rural, since private labs, which account for 63.5% of the total number of RT-PCR labs in India, are largely limited to tier-I and tier-II cities.
 - In MP, for instance, 80% of private labs are located in Indore and Bhopal. In UP, 50% of 77 private RT-PCR labs are located in Lucknow, Noida, Ghaziabad and Kanpur. Bihar has 38 districts and 14 private labs – eight are in Patna.
- **North-East: The largest gaps in testing infrastructure exist in the North East**
 - 4 states in the North East – Arunachal Pradesh, Mizoram, Meghalaya, and Nagaland – do not have even a single private RT-PCR lab.
 - Out of 120 districts across 8 states in the region, 99 districts (82.5%) do not have a single RT-PCR lab.
 - Arunachal Pradesh, for instance, uses rapid antigen tests for 90% of its samples, while the remaining 10% are processed through TrueNAT and RT-PCR. The sparsely populated hill state has just 14 people per sq km. Collecting a sample from a remote village and bringing it to one of the two RT-PCR labs in Naharlagun or Pasighat would mean a turnaround time of 10-12 days
 - In Mizoram, too, where 11 districts share a single RT-PCR lab in Falkawn, most of the testing is done through TrueNAT and rapid antigen tests.

COVID 19: Wave 3: Global Projections: 11 September – 10 October

The projection is an effort to support the Policy makers to examine and initiate necessary steps by effectively mobilising the required resources and achieve the core objective of reducing mortality.

**Globally, COVID Cases is expected to cross 242 Mn cases
~ 17 Mn new cases expected to be added during 11 Sep – 10 October**



COVID 19: Global Projection of Positive Cases (11 September - 10 October) (+/- 2%)					
Nation	Vaccination		Cases	COVID Cases	
	Full	Partial	Share (%)	Actual (11 September)	Projection (10 October)
USA	53	62	19	41744465	46920000
India	12	40	15	33200877	34340000
Brazil	33	66	9	20974850	21425000
UK	64	71	3	7168115	8390000
Russia	27	31	3	7102625	7630000
France	62	73	3	6887791	7131500
Turkey	47	60	3	6613976	7425000
Spain	77	79	2	4907461	5055000
Indonesia	15	25	2	4158731	4316000
Germany	61	66	2	4071607	4497000
Mexico	28	46	2	3479999	3824000
South Africa	11	17	1	2848925	3013000
Malaysia	51	64	1	1940950	2600000
Japan	50	62	1	1614124	1900000
Canada	68	74	1	1538093	1675000
Thailand	16	38	1	1352953	1740000
Israel	63	69	1	1154286	1333000
World	29	42		224611915	242600000

India and USA has 34% of total COVID cases in the world

USA is expected to add 5.17 Mn new cases during the period. 1/3rd of total incremental global new cases

India and UK is expected to add add 1.1 Mn and 1.2 Mn new cases respectively.

Canada is expected to witness daily average caseload of ~ 4500

COVID cases in **Turkey** and **Malaysia** is expected to increase by 0.8 and 0.66 Mn Cases respectively

Brazil and Germany is expected to witness daily caseload of ~ 15K

Indonesia, Brazil, France, Japan, and South Africa are expected to witness sharp decline in average daily caseload

The above 17 nations has ~ 70% of total COVID cases in the world

Unfortunately, World is likely to witness ~ 0.28 Mn new COVID deaths during 11 Sep – 10 Oct



USA is likely to witness over 62,000 new COVID deaths

Canada and **Germany** inspite of over 2/3rd of its population being fully vaccinated, is expected to witness sharp surge in COVID deaths when compared with previous 4-Weeks.

Canada is expected to witness ~ 1000 deaths, over 100% increase when compared with last month.

Germany, 1400, 80% increase over previous month.

Death toll in **Thailand** has doubled from 6588 to 13920 over the last 4 weeks.

In the next weeks, it is likely to witness additional ~ 5K deaths, increase of over 40%

Nations	Vaccination		Mortality	COVID Deaths (+/- 2%)	
	Full	Partial	Share (%)	Actual (11 September)	Projection (10 October)
USA	53	62	15	677018	740000
Brazil	33	66	13	585923	603000
India	12	40	10	442350	450000
Mexico	28	46	6	266150	285000
Russia	27	31	4	191165	215000
Indonesia	15	25	3	138431	150000
UK	64	71	3	133988	138000
France	62	73	2	115442	119000
Germany	61	66	2	93095	94500
Spain	77	79	2	85290	88500
South Africa	11	17	2	84608	92500
Turkey	47	60	1	59384	65600
Canada	68	74	1	27170	28200
Malaysia	51	64	0.4	19827	29700
Japan	50	62	0.4	16603	18500
Thailand	16	38	0.3	13920	19300
Israel	63	69	0.2	7321	7900
World	29	42		4629801	4914000

Death toll in **Mexico, Russia, Spain, and Japan** during the next 4 weeks, will be similar to previous 4 weeks.

Expected number of COVID deaths during the forecasted period: Mexico: ~ 20K
Russia: ~ 24K; Spain: ~ 3K
Japan: ~ 3K

South Africa & Turkey are expected to witness ~ 8K and ~ 6K deaths respectively

Israel is expected to witness ~ 575 deaths, least among other analysed nations.

Death toll in **Malaysia** has increased by ~ 80%, from 11162 to 19827

In the next weeks, it is likely to witness additional ~ 10K deaths, increase of over 50%

India has 15% and 13% of the world's total COVID cases and deaths. So far, it has fully vaccinated 12% of its population, least among the analysed nations. Surprisingly, death toll is expected drop by 40% in the coming 4 weeks when compared to previous 4 weeks. India is likely to witness ~ 7650 COVID deaths in the forecasted period. Last month, it has witnessed 12648 deaths. Last month, the estimated number of UNDER-REPORTING of COVID deaths is ~ 20,000.

In India, ~ 1 Mn COVID Cases and 20,600 Deaths are estimated to be UNDER-REPORTED in August 2021



Estimated Minimum Number of Under-Reported COVID Cases and Deaths in August			
Zone	States	Cases	Deaths
EAG States	Rajasthan	250000	500
Mega States	Andhra Pradesh	150000	3400
Mega States	Karnataka	130000	2500
Mega States	Tamil Nadu	106000	2800
Mega States	Gujarat	100000	2600
EAG States	Madhya Pradesh	44000	1600
EAG States	Uttar Pradesh	44000	1300
Mega States	Haryana	34000	650
Mega States	Maharashtra	30000	2000
Mega States	West Bengal	28500	2000
Delhi	Delhi	14000	275
Mega States	Punjab	8000	0
EAG States	Jharkhand	7000	250
EAG States	Bihar	7000	325
EAG States	Chattisgarh	7000	275
EAG States	Uttarakhand	4500	125
India		964000	20600

Lives of millions of school and college going children are in danger in these states where physical class sessions have restarted

Overview of Future COVID Trend in India during 11 September – 10 October



- **India** is expected to officially add 1.13 Mn new COVID Cases and 8200 deaths during the period
- **Mega States** estimated to contribute over 91% of incremental COVID caseloads and deaths
 - 2/3rd of new cases is expected to be traced in **Kerala** which is expected to add over 0.75 Mn new COVID cases. Death toll in Kerala is likely to increase by 4250, 60% of India's incremental death toll.
- **Gujarat, Haryana, and Punjab** are collectively expected to add less than 2000 new cases and 75 deaths.
 - Under-Reporting: During August, 0.14 Mn cases collectively Under-reported in these 3 states. Total under-reporting of COVID deaths in Gujarat and Haryana is estimated to be around 3250
- **Maharashtra** is expected to add over 100K new cases and ~ 1100 deaths
- Even though, **Tamil Nadu** and **Andhra Pradesh** are estimated to add ~ 50K new cases each, AP is estimated to witness only 255 deaths whereas Tamil Nadu is estimated to witness over 475 deaths. The key driver for AP's efficient and effective clinical management is effective utilisation of PM-JAY scheme.
- **Karnataka** and **West Bengal** is estimated to add ~ 22 – 25K new cases and ~ 250 and 275 new deaths
- Based on the official reported data, **Delhi** is expected to add ~ 1000 new cases and unlikely to officially report any COVID death.
 - UNDER-REPORTING: During August, ~ 14K COVID cases and 275 deaths were estimated to be UNDER-REPORTED in Delhi
- **EAG States and North-East States: Contrasting COVID Pattern:**
 - 608 Mn people, 44% of India's population, live in 7 states - **Bihar, Chattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh, and Uttarakhand**. These states occupy ~ 1.25 Mn Sq Kms of land area, ~ 40% of total land of India. However, out of 1.13 Mn projected new cases, only 3500 are expected to be traced in these states.
 - UNDER-REPORTING: During August, 0.36 Mn cases and 4400 deaths were estimated to be collectively UNDER-REPORTED by these 7 States
 - On the contrary, **North-East States** which has 1.1% of India's population and occupying less than 6% of land area, is likely to add over 57K new cases, more than EAG States which has over 45% of India's population and occupies over 30% of the land area. EAG States is expected to add only 35K new cases
 - Among NE State, **Mizoram** is expected to witness sharp surge in COVID cases. It is likely to add 40K new COVID cases, 72% of total new cases estimated to be added by NE States.

India steps into 3rd Wave, Estimated to add 1.13 New COVID Cases during 11 Sept – 10 Oct

3rd Wave: Mega States: COVID Cases Growth Projection: 11 Sep - 10 Oct 2021 (+/- 5%)		
Mega States	11-Sep	Projection (10 Oct)
Andhra Pradesh	2027650	2080000
Gujarat	825584	826150
Haryana	770626	771000
Himachal Pradesh	215437	220700
Jammu & Kashmir	326653	330250
Karnataka	2960131	2985000
Kerala	4334704	5100000
Maharashtra	6491179	6600000
Punjab	600970	602000
Tamil Nadu	2630592	2680000
Telangana	661006	668200
West Bengal	1555405	1578000
Total	23399937	24441300

3rd Wave: Zonewise: COVID Cases Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
Zones	Actual (10 Sep)	Projection (Oct 10)
Mega States	23399937	24441300
EAG States	7487296	7522180
Micro States	636519	692500
Union Territories	238975	242645
Delhi	1438154	1439250
Total	33200881	34337875

3rd Wave: EAG States: COVID Cases Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
EAG States	Actual (10 Sep)	Projection (10 Oct)
Assam	594347	604500
Bihar	725806	726200
Chattisgarh	1004820	1005500
Jharkhand	348055	349000
Madhya Pradesh	792311	792550
Odisha	1015083	1036500
Rajasthan	954175	954400
Uttar Pradesh	1709512	1709750
Uttarakhand	343187	343780
Total	7487296	7522180

3rd Wave: Union Territories: COVID Cases Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
Union Territories	Actual (10 Sep)	Projection (10 Oct)
Andaman & Nicobar	7579	7600
Chandigarh	65145	65250
Dadra & Nagar Haveli	10672	10700
Ladakh	20600	20720
Lakshadweep	10350	10375
Puducherry	124629	128000
Total	238975	242645

3rd Wave: North-East States: COVID Cases Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
North-East States	Actual (10 Sep)	Projection (10 Oct)
Arunachal Pradesh	53663	55100
Manipur	116607	122600
Meghalaya	77877	82400
Mizoram	69026	108700
Nagaland	30555	31500
Sikkim	30501	31700
Tripura	83520	84850
Total	461749	516850

3rd Wave: Goa: COVID Cases Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
Goa	Actual (10 Sep)	Projection (10 Oct)
Goa	174770	177225

India steps into 3rd Wave, unfortunately ~ 8200 people are Estimated to succumb in next 4 weeks



3rd Wave: Mega States: COVID Mortality Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
Mega States	Actual (11 Sep)	Projection (10 Oct)
Andhra Pradesh	13970	14225
Gujarat	10082	10085
Haryana	9686	9710
Himachal Pradesh	3614	3700
Jammu & Kashmir	4411	4411
Karnataka	37472	37700
Kerala	22303	27250
Maharashtra	138061	139200
Punjab	16453	16500
Tamil Nadu	35119	35600
Telangana	3892	3920
West Bengal	18553	18825
Total	313616	321126

3rd Wave: Union Territories: COVID Mortality Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
Union Territories	Actual (10 Sep)	Projection (10 Oct)
Puducherry	1820	1845
Ladakh	207	208
Dadra & Nagar Haveli	4	4
Chandigarh	816	816
Lakshadweep	51	51
Andaman & Nicobar	129	129
Total	3027	3053

3rd Wave: Zonewise: COVID Mortality Growth Projection: 11 Sep - 10 Oct 2021 (+/- 5%)		
Zones	Actual (10 Sep)	Oct 10 (Projection)
Mega States	313616	321126
EAG States	91942	92277
Micro States	8682	9010
Union Territories	3027	3053
Delhi	25083	25083
Total	442350	450549

3rd Wave: North-East States: COVID Mortality Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
North-East States	Actual (10 Sep)	Projection (10 Oct)
Arunachal Pradesh	269	290
Manipur	1807	1840
Meghalaya	1346	1475
Mizoram	233	285
Nagaland	634	660
Sikkim	377	405
Tripura	802	825
Total	5468	5780

3rd Wave: EAG States: COVID Mortality Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
EAG States	Actual (10 Sep)	Projection (10 Oct)
Assam	5732	5825
Bihar	9658	9690
Chattisgarh	13558	13558
Jharkhand	5133	5133
Madhya Pradesh	10517	10517
Odisha	8137	8300
Rajasthan	8954	8954
Uttar Pradesh	22864	22890
Uttarakhand	7389	7410
Total	91942	92277

3rd Wave: Goa: COVID Mortality Growth Projection: 11 Sept - 10 Oct 2021 (+/- 5%)		
Goa	Actual (10 Sep)	Projection (10 Oct)
Goa	3214	3230

I am delighted and pleased to learn that your organization Jeevan Raksha is active & doing human work in the worst situation of COVID - 19, I appreciate & Express my feelings towards your trends and projection regarding COVID - 19. I wish to congratulate you and team vision for Jeevan Raksha project.

I wish you every success in your motto.

Thank You.

Shri Vinod L Chavda

Hon'ble Member of Parliament
Kutch-Morbi Constituency, Gujarat
17 June 2021

Thank you for sending your forecast. I am impressed that you have accurately forecast the growth in the last month. We will prepare for the scenario you have outlined for the next month.

Regards,

Shri T M Vijay Bhaskar IAS
Chief Secretary
Government of Karnataka
19 August 2020

ANNEXURE: 1

COVID 19: WAVE 1: Projection and Actuals: Snapshot (August 2020 – January 2021)

COVID 19: Wave 1: Zonewise Projections and Actuals: Positive Cases and Deaths

30-Day COVID Cases Growth Projection																
Consolidated	16-Aug	12-Sep		%ge Actual of Projected	12-Oct		%ge Actual of Projected	12-Nov		%ge Actual of Projected	12-Dec		%ge Actual of Projected	12-Jan		%ge Actual of Projected
	Actuals	Projection	Actual		Projections	Actuals		Projections	Actuals		Projections	Actuals		Projections	Actuals	
Mega States	1852408	3245361	3279953	101	5229600	5002180	96	6503100	6025325	93	6800000	6712696	99	7235000	7155680	99
EAG States	538721	1146000	1065505	93	1765000	1681197	95	2115400	2027541	96	2315000	2306290	100	2523000	2465664	98
Micro States	32020	61400	66477	108	124700	113834	91	144100	142017	99	164100	159616	97	172600	166739	97
Union Territories	15424	34200	35722	104	59200	57342	97	72400	66713	92	76900	73308	95	78400	76841	98
Delhi	151928	185000	209748	113	330000	311188	94	400000	467028	117	675000	605470	90	660000	630892	96
Total	2590501	4671961	4657405	100	7508500	7165741	95	9235000	8728624	95	10031000	9857380	98	10669000	10495816	98

30-Day COVID Mortality Projection																
Consolidated	16-Aug	12-Sep		%ge Actual of Projected	12-Oct		%ge Actual of Projected	12-Nov		%ge og Actual of Projected	12-Dec		%ge og Actual of Projected	12-Jan		%ge og Actual of Projected
	Actuals	Projection	Actual		Projections	Actuals		Projections	Actual		Projections	Actual		Projections	Actual	
Mega States	39610	68268	61242	90	91525	85942	94	103605	98276	95	107500	106620	99	114500	112191	98
EAG States	5946	11325	10503	93	16950	16468	97	21480	20597	96	23500	23617	100	25785	25587	99
Micro States	185	345	555	161	1067	1076	101	1665	1501	90	1822	1772	97	2040	1920	94
Union Territories	170	389	539	139	1008	878	87	1110	1003	90	1128	1105	98	1275	1159	91
Delhi	4188	4700	4687	100	5500	5809	106	7000	7332	105	10300	9981	97	11500	10707	93
Total	50099	85027	77526	91	116050	110173	95	134860	128709	95	144250	143095	99	155100	151564	98

COVID 19: Wave 1: Mega States: Projections and Actuals: Positive Cases & Deaths



Mega States	16-Aug	12-Sep		%ge Actual of Projected	12-Oct		%ge og Actual of Projected	12-Nov		%ge og Actual of Projected	12-Dec		%ge og Actual of Projected	12-Jan		%ge og Actual of Projected
	Actuals	Projecti on	Actual		Projecti on	Actual		Projecti ons	Actual		Projecti ons	Actual		Projecti ons	Actual	
Andhra Pradesh	281817	580000	547686	94	875000	758951	87	900000	849705	94	900000	875025	97	890000	885234	99
Gujarat	77663	100000	110971	111	150000	152764	102	190000	184964	97	220000	226508	103	255000	253161	99
Haryana	46410	60000	88332	147	160000	143221	90	170000	193111	114	280000	251402	90	280000	265391	95
Himachal Pradesh	3993	7000	8784	125	17000	17578	103	25000	28183	113	50000	48951	98	70000	56596	81
Jammu & Kashmir	28021	50000	50712	101	100000	84031	84	100000	100968	101	120000	115626	96	125000	122764	98
Karnataka	219926	450000	440411	98	700000	717915	103	1000000	855912	86	925000	900214	97	930000	928806	100
Kerala	42885	90000	102255	114	200000	295133	148	660000	508257	77	660000	664633	101	785000	819766	104
Maharashtra	584754	1000000	1015681	102	1750000	1535315	88	1875000	1736329	93	1850000	1876699	101	1975000	1974488	100
Punjab	30041	62000	74616	120	150000	124535	83	150000	139869	93	160000	159579	100	175000	169479	97
Tamil Nadu	332105	520000	491571	95	675000	661264	98	820000	752521	92	810000	797693	98	825000	827614	100
Telangana	91361	91361	152602	NA	152600	213084	NA	213100	254666	120	290000	277151	96	295000	290309	98
West Bengal	113432	235000	196332	84	300000	298389	99	400000	420840	105	535000	519215	97	630000	562072	89
Total	1852408	3245361	3279953	101	5229600	5002180	96	6503100	6025325	93	6800000	6712696	99	7235000	7155680	99

Mega States	16-Aug	12-Sep		%ge Actual of Projected	12-Oct		%ge og Actual of Projected	12-Nov		%ge og Actual of Projected	12-Dec		%ge og Actual of Projected	12-Jan		%ge og Actual of Projected
	Actuals	Projecti on	Actual		Projecti on	Actuals		Projecti ons	Actual		Projecti ons	Actual		Projecti ons	Actual	
Andhra Pradesh	2562	6250	4779	76	7000	6256	89	7000	6837	98	7150	7052	99	7125	7133	100
Gujarat	2765	3000	3181	106	3600	3577	99	3900	3785	97	3950	4160	105	5500	4350	79
Haryana	528	700	932	133	1800	1592	88	2000	1979	99	2450	2710	111	3200	2964	93
Himachal Pradesh	18	25	70	280	175	246	141	375	405	108	650	793	122	1190	949	80
Jammu & Kashmir	527	1500	854	57	1300	1333	103	1700	1566	92	1800	1793	100	2060	1912	93
Karnataka	3832	6700	7067	105	11200	10314	92	12800	11474	90	12000	11939	99	12200	12149	100
Kerala	147	400	411	103	800	1026	128	2000	1797	90	2600	2595	100	3350	3348	100
Maharashtra	19749	31000	28724	93	44000	40514	92	48000	45682	95	49000	48139	98	50000	50151	100
Punjab	771	4000	2212	55	4800	3860	80	4800	4412	92	5200	5057	97	5800	5456	94
Tamil Nadu	5641	9000	8234	91	10500	10314	98	12200	11440	94	12150	11883	98	12200	12236	100
Telangana	693	693	950	137	950	1228	129	1230	1393	113	1550	1489	96	1525	1568	103
West Bengal	2377	5000	3828	77	5400	5682	105	7600	7506	99	9000	9010	100	10350	9975	96
Total	39610	68268	61242	90	91525	85942	94	103605	98276	95	107500	106620	99	114500	112191	98

COVID 19: Wave 1: EAG States: Projections and Actuals: Positive Cases & Deaths



EAG States	16-Aug	12-Sep		%ge Actual of Projected	12-Oct		%ge og Actual of Projected	12-Nov		%ge og Actual of Projected	12-Dec		%ge og Actual of Projected	12-Jan		%ge og Actual of Projected
	Actuals	Projectio n	Actual		Projectio n	Actuals		Projectio ns	Actual		Projectio ns	Actual		Projectio ns	Actual	
Assam	75559	165000	138339	84	215000	195304	NA	195400	209835	107	215000	214584	100	220000	216690	98
Bihar	101906	225000	155445	69	200000	197000	99	230000	225500	98	245000	242748	99	260000	257335	99
Chattisgarh	15045	25000	58643	235	145000	145247	100	225000	207740	92	265000	255761	97	300000	290813	97
Jharkhand	22672	50000	59040	118	110000	93035	85	115000	105493	92	112000	111366	99	115000	117088	102
Madhya Pradesh	44433	75000	83619	111	145000	148298	102	200000	180997	90	210000	222397	106	250000	249553	100
Odisha	57126	120000	143117	119	250000	254662	102	335000	305986	91	335000	323364	97	333000	332331	100
Rajasthan	59979	100000	99036	99	150000	161184	107	225000	219327	97	285000	289999	102	325000	313718	97
Uttar Pradesh	150061	365000	299045	82	500000	439161	88	520000	505424	97	565000	564132	100	610000	594175	97
Uttarakhand	11940	21000	29221	139	50000	47306	95	70000	67239	96	83000	81939	99	110000	93961	85
Total	538721	1146000	1065505	93	1765000	1681197	95	2115400	2027541	96	2315000	2306290	100	2523000	2465664	98

EAG States	16-Aug	12-Sep		%ge Actual of Projected	12-Oct		%ge og Actual of Projected	12-Nov		%ge og Actual of Projected	12-Dec		%ge og Actual of Projected	12-Jan		%ge og Actual of Projected
	Actuals	Projecti on	Actual		Projecti on	Actuals		Projecti ons	Actual		Projecti ons	Actual		Projecti ons	Actual	
Assam	182	400	430	108	900	826	NA	830	958	115	1050	1000	95	1030	1064	103
Bihar	515	1100	797	72	1100	955	87	1100	1167	106	1350	1317	98	1440	1443	100
Chattisgarh	134	525	518	99	1600	1286	80	2350	2527	108	3100	3084	99	3500	3517	100
Jharkhand	229	500	532	106	900	798	89	1000	917	92	1000	995	100	1030	1048	102
Madhya Pradesh	1094	1500	1691	113	2500	2645	106	3600	3065	85	3350	3391	101	3630	3726	103
Odisha	386	800	658	82	1000	1093	109	1500	1536	102	2000	1855	93	1975	1947	99
Rajasthan	862	1200	1207	101	1650	1665	101	2150	2032	95	2400	2568	107	2930	2739	93
Uttar Pradesh	2393	5000	4282	86	6600	6438	98	7700	7302	95	8000	8056	101	8650	8514	98
Uttarakhand	151	300	388	129	700	762	109	1250	1093	87	1250	1351	108	1600	1589	99
Total	5946	11325	10503	93	16950	16468	97	21480	20597	96	23500	23617	100	25785	25587	99

COVID 19: Wave 1: Micro States: Projections and Actuals: Positive Cases & Deaths



Micro States	16-Aug Actuals	12-Sep		%ge Actual of Projected	12-Oct		%ge og Actual of Projected	12-Nov		%ge og Actual of Projected	12-Dec		%ge og Actual of Projected	12-Dec		%ge og Actual of Projected
		Projectio n	Actual		Projectio n	Actual		Projectio ns	Actual		Projectio ns	Actual		Projectio ns	Actual	
Arunachal Pradesh	2658	4500	5825	129	11000	12367	112	19000	15701	83	17700	16504	93	16900	16782	99
Goa	11339	23500	23445	100	45000	38674	86	51000	45605	89	50000	49305	99	51500	51983	101
Manipur	4390	7500	7579	101	11000	13556	123	20000	21211	106	29000	27036	93	31500	28725	91
Meghalaya	1292	2250	3447	153	6000	7771	130	12400	10512	85	13300	12743	96	15000	13651	91
Mizoram	777	1600	1379	86	3700	2184	59	2600	3242	125	4300	4024	94	4200	4299	102
Nagaland	3340	7000	4946	71	10000	7240	72	9500	9615	101	10300	11676	113	14000	11997	86
Sikkim	1148	2000	2026	101	3000	3367	112	4600	4369	95	5500	5316	97	6000	5996	100
Tripura	7076	12200	17830	146	35000	28675	82	25000	31762	127	34000	33012	97	33500	33306	99
Total	32020	60550	66477	110	124700	113834	91	144100	142017	99	164100	159616	97	172600	166739	97

Micro States	16-Aug Actuals	12-Sep		%ge Actual of Projected	12-Oct		%ge og Actual of Projected	12-Nov		%ge og Actual of Projected	12-Dec		%ge og Actual of Projected	12-Jan		%ge og Actual of Projected
		Projectio n	Actual		Projectio n	Actual		Projectio ns	Actual		Projectio ns	Actual		Projectio ns	Actual	
Goa	98	240	276	115	525	511	97	750	656	87	800	705	88	730	749	103
Tripura	55	60	182	303	375	314	84	400	356	89	400	372	93	400	385	96
Manipur	13	20	44	220	100	93	93	150	207	138	300	322	107	415	365	88
Nagaland	7	9	8	89	10	13	130	40	50	125	60	68	113	100	84	84
Arunachal Pradesh	5	7	10	143	12	24	200	85	47	55	60	55	92	80	56	70
Meghalaya	6	7	24	343	30	64	213	90	98	109	100	125	125	155	143	92
Sikkim	1	1	11	1100	15	57	380	150	85	57	100	118	118	150	129	86
Mizoram	0	1	0	0	0	0	0	0	2	#DIV/0!	2	7	350	10	9	90
Total	185	345	555	161	1067	1076	101	1665	1501	90	1822	1772	97	2040	1920	94

COVID 19: Wave 1: Union Territories: Projections and Actuals: Positive Cases and Deaths



Union Territories	16-Aug	12-Sep		%ge Actual of Projected	12-Oct		%ge og Actual of Projected	12-Nov		%ge og Actual of Projected	12-Dec		%ge og Actual of Projected	12-Jan		%ge og Actual of Projected
	Actuals	Projectio n	Actual		Projectio n	Actual		Projectio ns	Actual		Projectio ns	Actual		Projectio ns	Actual	
Andaman & Nichobar	2306	6500	3494	54	4500	4023	89	4400	4507	102	5000	4805	96	5000	4966	99
Chandigarh	2009	3500	7292	208	17000	13264	78	15500	15543	100	18500	18572	100	20000	20378	102
Dadra & Nagar Haveli	1846	3200	2682	84	3500	3167	90	3500	3273	94	4400	3349	76	5400	3368	62
Ladakh	1909	3000	3228	108	4200	5151	123	7000	7211	103	10000	9138	91	10000	9634	96
Puducherry	7354	18000	19026	106	30000	31737	106	42000	36179	86	39000	37444	96	38000	38495	101
Total	15424	34200	35722	104	59200	57342	97	72400	66713	92	76900	73308	95	78400	76841	98

Union Territories	16-Aug	12-Sep		%ge Actual of Projected	12-Oct		%ge Actual of Projected	12-Nov		%ge Actual of Projected	12-Dec		%ge Actual of Projected	12-Jan		%ge Actual of Projected
	Actuals	Projectio n	Actual		Projectio n	Actual		Projectio ns	Actual		Projectio ns	Actual		Projectio ns	Actual	
Puducherry	106	270	365	135	750	565	75	650	607	93	650	619	95	650	639	98
Ladakh	10	15	38	253	45	64	142	90	89	99	100	123	123	150	128	85
Dadra & Nagar Haveli	2	4	2	50	3	2	67	30	2	7	3	2	67	25	2	8
Chandigarh	28	50	83	166	150	192	128	250	244	98	300	300	100	360	328	91
Andaman & Nichobar	24	50	51	102	60	55	92	90	61	68	75	61	81	90	62	69
Total	170	389	539	139	1008	878	87	1110	1003	90	1128	1105	98	1275	1159	91

ANNEXURE: 2
COVID 19: WAVE 2: Projection and Actuals: Snapshot (April 2021 – September 2021)

COVID 19: Wave 2: Zonewise Projections and Actuals: Positive Cases and Deaths

2nd Wave: Zonewise: COVID Cases Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
Zones	11-Apr	11 May (Projection)	Actuals (10 May)	%ge Actual of Projected	June 10 (Projection)	Actual (10 Jun)	%ge Actual of Projected	Projection (Jul 10)	Actual (10 July)	%ge Actual of Projected	Projection (Aug 10)	Actual (10 Aug)	%ge Actual of Projected	Projection (Sep 10)	Actual (10 Sep)	%ge Actual of Projected
Mega States	9585959	12094000	15505145	128	20915000	20118020	96	21828000	21363256	98	22351500	22347007	100	23034650	23399937	102
EAG States	2938546	3963500	5829820	147	8295000	7108791	86	7465000	7328353	98	7489000	7438326	99	7485000	7487296	100
Micro States	117804	121700	148467	122	198500	243946	123	501000	480693	96	590250	580582	98	648850	636519	98
Union Territories	94770	115600	157010	136	231000	218805	95	239000	228930	96	234125	232633	99	235685	238975	101
Delhi	725197	1000000	1336218	134	1636218	1430433	87	1438000	1435030	100	1437300	1436852	100	1438250	1438154	100
Total	13462276	17294800	22976660	133	31275718	29119995	93	31471000	30836262	98	32102175	32035400	100	32842435	33200881	101

2nd Wave: Zonewise: COVID Mortality Growth Projection: 11 April- 10 September 2021 (+/- 5%)																
Zones	11-Apr	11-May	Actuals (10 May)	%ge Actual of Projected	June 10 (Projection)	Actual	%ge Actual of Projected	Jul 10 (Projection)	Actual (10 Jul)	%ge Actual of Projected	Aug 10 (Projection)	Actual (10 Aug)	%ge Actual of Projected	Sep 10 (Projection)	Actual (10 Sep)	%ge Actual of Projected
Mega States	126738	139250	172342	124	236700	248928	105	278250	287403	103	314095	303031	96	311015	313616	101
EAG States	28841	34875	54048	155	85450	80647	94	86250	85612	99	89765	89969	100	92115	91942	100
Micro States	1213	1213	1541	127	2580	3148	122	7000	7079	101	8000	8072	101	9005	8682	96
Union Territories	1285	1375	1832	133	2785	2819	101	3000	2966	99	3065	3002	98	3035	3027	100
Delhi	11283	12600	19663	156	27063	24748	91	25500	25012	98	25075	25068	100	25095	25083	100
Total	169360	189313	249426	132	354578	360290	102	400000	408072	102	440000	429142	98	440265	442350	100

COVID 19: Wave 2: Mega States: Projections and Actuals: Positive Cases & Deaths



2nd Wave: Mega States: COVID Cases Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
Mega States	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 June)	%ge Actual of Projected	Projection (10 Jul)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Andhra Pradesh	925401	1000000	1302589	130	1775000	1787883	101	2000000	1920178	96	2000000	1985182	99	2025000	2027650	100
Gujarat	347495	480000	692604	144	1000000	818895	82	830000	824200	99	826000	825085	100	825750	825584	100
Haryana	316881	390000	628615	161	1000000	764633	76	780000	769243	99	770000	770114	100	770700	770626	100
Himachal Pradesh	69686	84000	135782	162	250000	197438	79	210000	203563	97	208500	208616	100	220000	215437	98
Jammu & Kashmir	138390	165000	224898	136	325000	304866	94	330000	318469	97	325000	322771	99	325000	326653	101
Karnataka	1065290	1290000	1973683	153	3000000	2739290	91	3000000	2869320	96	2935000	2921049	100	2950000	2960131	100
Kerala	1167191	1300000	1967406	151	2600000	2688590	103	3000000	3053116	102	3530000	3586693	102	4000000	4334704	108
Maharashtra	3407245	4800000	5179929	108	6000000	5876087	98	6150000	6149264	100	6365000	6363442	100	6475000	6491179	100
Punjab	272772	360000	450674	125	700000	584785	84	618000	597469	97	602000	599573	100	601200	600970	100
Tamil Nadu	933434	1100000	1409237	128	2100000	2308838	110	2675000	2516011	94	2600000	2579130	99	2630000	2630592	100
Telangana	327278	405000	506988	125	640000	598611	94	650000	631218	97	650000	650353	100	662000	661006	100
West Bengal	614896	720000	1032740	143	1525000	1448104	95	1585000	1511205	95	1540000	1534999	100	1550000	1555405	100
Total	9585959	12094000	15505145	128	20915000	20118020	96	21828000	21363256	98	22351500	22347007	100	23034650	23399937	102

2nd Wave: Mega States: COVID Mortality Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
Mega States	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 Jun)	%ge Actual of Projected	Projection (10 Jul)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Andhra Pradesh	7300	7600	8791	116	10800	11763	109	12675	12986	102	13400	13564	101	13925	13970	100
Gujarat	4800	6100	8511	140	11000	9976	91	10200	10073	99	10100	10077	100	10100	10082	100
Haryana	3268	3600	5766	160	10650	8861	83	9500	9542	100	9800	9652	98	9675	9686	100
Himachal Pradesh	1102	1250	1925	154	3800	3344	88	3600	3474	97	3500	3521	101	3550	3614	102
Jammu & Kashmir	2034	2150	2847	132	4700	4143	88	4575	4356	95	4400	4392	100	4415	4411	100
Karnataka	12889	13600	19372	142	35000	32485	93	35600	35779	101	37275	36848	99	37470	37472	100
Kerala	4784	5200	5959	115	8000	10631	133	15000	14489	97	18770	18004	96	21925	22303	102
Maharashtra	57987	65000	77191	119	92000	103748	113	114000	125528	110	143400	134201	94	136580	138061	101
Punjab	7507	8750	10704	122	17500	15367	88	16600	16177	97	16500	16322	99	16370	16453	101
Tamil Nadu	12908	13450	15880	118	22300	28528	128	34500	33371	97	34700	34367	99	34500	35119	102
Telangana	1759	1900	2803	148	3700	3440	93	3700	3725	101	3850	3831	100	3915	3892	99
West Bengal	10400	10650	12593	118	17250	16642	96	18300	17903	98	18400	18252	99	18590	18553	100
Total	126738	139250	172342	124	236700	248928	105	278250	287403	103	314095	303031	96	311015	313616	101

COVID 19: Wave 1: EAG States: Projections and Actuals: Positive Cases & Deaths



2nd Wave: EAG States: COVID Cases Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
EAG States	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 Jun)	%ge Actual of Projected	Projection (10 Jul)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Assam	220310	228500	298171	130	400000	450201	113	550000	532084	97	606000	576149	95	595000	594347	100
Bihar	283229	375000	601650	160	850000	715730	84	730000	723147	99	726000	725279	100	727000	725806	100
Chattisgarh	443297	685000	863343	126	1150000	984950	86	1010000	997785	99	1010000	1003356	99	1006000	1004820	100
Jharkhand	139384	195000	292530	150	440000	342774	78	350000	346279	99	348000	347440	100	349000	348055	100
Madhya Pradesh	338145	485000	681478	141	930000	787175	85	800000	790152	99	791000	791980	100	792350	792311	100
Odisha	349561	375000	544873	145	825000	842461	102	1000000	937470	94	1000000	988997	99	1008000	1015083	101
Rajasthan	363793	480000	773194	161	1300000	948562	73	960000	953074	99	955000	953851	100	954350	954175	100
Uttar Pradesh	692015	1000000	1524767	152	2000000	1701072	85	1715000	1707225	100	1710000	1708812	100	1709900	1709512	100
Uttarakhand	108812	140000	249814	178	400000	335866	84	350000	341137	97	343000	342462	100	343400	343187	100
Total	2938546	3963500	5829820	147	8295000	7108791	86	7465000	7328353	98	7489000	7438326	99	7485000	7487296	100

2nd Wave: EAG States: COVID Mortality Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
EAG States	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 Jun)	%ge Actual of Projected	Projection (11 Jul)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Assam	1118	1150	1753	152	4000	3844	96	4700	4812	102	5620	5420	96	5800	5732	99
Bihar	1610	1700	3357	197	5100	9452	185	10375	9618	93	9700	9646	99	9680	9658	100
Chattisgarh	4899	8050	10742	133	15000	13285	89	13500	13475	100	13575	13544	100	13600	13558	100
Jharkhand	1213	1675	3982	238	7300	5081	70	5150	5119	99	5150	5130	100	5135	5133	100
Madhya Pradesh	4184	4750	6501	137	8850	8475	96	9050	9025	100	9100	10514	116	10535	10517	100
Odisha	1979	2000	2250	113	2750	3263	119	4275	4587	107	6460	6618	102	8200	8137	99
Rajasthan	2926	3150	5825	185	9800	8772	90	9100	8945	98	9875	8954	91	8975	8954	100
Uttar Pradesh	9152	10550	15742	149	23000	21597	94	22700	22693	100	22925	22775	99	22800	22864	100
Uttarakhand	1760	1850	3896	211	9650	6878	71	7400	7338	99	7360	7368	100	7390	7389	100
Total	28841	34875	54048	155	85450	80647	94	86250	85612	99	89765	89969	100	92115	91942	100

COVID 19: Wave 1: Union Territories: Projections and Actuals: Positive Cases and Deaths



2nd Wave: EAG States: COVID Cases Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
Union Territories	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 Jun)	%ge Actual of Projected	Projection (10 Jul)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Andaman & Nicobar	5190	5600	6398	114	7000	7197	103	7800	7492	96	7525	7548	100	7580	7579	100
Chandigarh	30743	40000	51070	128	80000	60928	76	63000	61823	98	62250	61992	100	62125	65145	105
Dadra & Nagar Haveli	4014	6000	9089	151	11000	10448	95	10700	10587	99	10700	10657	100	10685	10672	100
Ladakh	10780	12000	15429	129	18000	19475	108	21000	20186	96	20750	20407	98	20625	20600	100
Lakshadweep						9073	#DIV/0!	11500	10011	87	10400	10263	99	10420	10350	99
Puducherry	44043	52000	75024	144	115000	111684	97	125000	118831	95	122500	121766	99	124250	124629	100
Total	94770	115600	157010	136	231000	218805	95	239000	228930	96	234125	232633	99	235685	238975	101

2nd Wave: Union Territories: COVID Mortality Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
Union Territories	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 Jun)	%ge Actual of Projected	Projection (10 Jul)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Puducherry	691	720	1018	141	1700	1668	98	1760	1769	101	1800	1800	100	1825	1820	100
Ladakh	131	131	157	120	180	197	109	220	206	94	230	207	90	210	207	99
Dadra & Nagar Haveli	2	2	4	200	5	4	80	6	4	67	5	4	80	5	4	80
Chandigarh	399	460	575	125	800	783	98	810	809	100	830	811	98	813	816	100
Lakshadweep						42	#DIV/0!	44	49	111	50	51	102	52	51	98
Andaman & Nicobar	62	62	78	126	100	125	125	160	129	81	150	129	86	130	129	99
Total	1285	1375	1832	133	2785	2819	101	3000	2966	99	3065	3002	98	3035	3027	100

COVID 19: Wave 1: Micro States & Goa: Projections and Actuals: Positive Cases & Deaths



2nd Wave: North-East States: COVID Cases Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
North-East States	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 Jun)	%ge Actual of Projected	Projection (10 Jun)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Arunachal Pradesh	16882	17000	20575	121	25000	30492	122	37000	39563	107	56700	50605	89	58500	53663	92
Manipur	29496	29700	35778	120	50000	58081	116	80000	76820	96	106300	105424	99	120000	116607	97
Meghalaya	14274	15000	20129	134	35000	41100	117	58000	54155	93	68300	69769	102	79000	77877	99
Mizoram	4612	5200	7623	147	10500	14743	140	26000	23551	91	41200	45457	110	69600	69026	99
Nagaland	12405	12500	16283	130	21000	23350	111	28000	25898	92	29000	28811	99	31000	30555	99
Sikkim	6405	7400	9924	134	13000	18090	139	25000	22163	89	27750	28018	101	30500	30501	100
Tripura	33730	34900	38155	109	44000	58090	132	75000	69958	93	86000	80413	94	84600	83520	99
Total	117804	121700	148467	122	198500	243946	123	329000	312108	95	415250	408497	98	473200	461749	98

2nd Wave: Goa: COVID Cases Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
Micro States	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 Jun)	%ge Actual of Projected	Projection (10 Jun)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Goa	62304	77000	121650	158	190000	161153	85	172000	168585	98	175000	172085	98	175650	174770	99

2nd Wave: North-East States: COVID Mortality Growth Projection: 11 April - 10 September 2021 (+/- 5%)																
North-East States	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 Jun)	%ge Actual of Projected	Projection (10 Jul)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Arunachal Pradesh	56	56	68	121	90	133	148	200	188	94	230	248	108	310	269	87
Manipur	376	376	489	130	930	925	99	1050	1258	120	1480	1664	112	1810	1807	100
Meghalaya	151	151	233	154	480	714	149	930	906	97	1160	1185	102	1550	1346	87
Mizoram	11	11	22	200	40	61	153	100	103	103	135	171	127	250	233	93
Nagaland	93	93	150	161	350	441	126	520	507	98	535	585	109	615	634	103
Sikkim	136	136	169	124	250	281	112	300	313	104	345	356	103	390	377	97
Tripura	390	390	410	105	440	593	135	750	709	95	855	768	90	820	802	98
Total	1213	1213	1541	127	2580	3148	122	3850	3984	103	4740	4977	105	5745	5468	95

2nd Wave: Goa: COVID Mortality Growth Projection: 11 August - 10 September 2021 (+/- 5%)																
Goa	Actual (11 April)	Projection (10 May)	Actual (10 May)	%ge Actual of Projected	Projection (10 June)	Actual (10 Jun)	%ge Actual of Projected	Projection (10 Jul)	Actual (10 July)	%ge Actual of Projected	Projection (10 Aug)	Actual (10 Aug)	%ge Actual of Projected	Projection (10 Sep)	Actual (10 Sep)	%ge Actual of Projected
Goa	848	900	1729	192	3125	2891	93	3150	3095	98	3260	3164	97	3260	3164	97

Data source and disclaimer

1. 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; www.wikipedia.org;
<https://www.worldometers.info/coronavirus/#countries> / <https://coronavirus.jhu.edu/>
<https://ourworldindata.org/covid-vaccinations>
2. The user of this presentation is advised to revalidate the shared data from authorised public Institutions and make appropriate interpretation and inferences and accordingly draw conclusion

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Thank you