

Coronavirus (COVID-19) in India: Present Situation

Dr. Varsha Nigam Gour¹, Nidhi Yadav²

*1*Associate professor/ SAGE University/ Bhopal/Madhya Pradesh/India*

2 Nidhi Yadav/ RS/ Himalayan University/Itanagar/Arunachal Pradesh/India*

Abstract

The emerging infection of COVID-19 was initiated from Wuhan, China, have been spread to more than 210 countries around the globe including India. The clinical symptoms of COVID-19 are very similar to other respiratory viruses. The number of laboratory-confirmed cases and associated deaths are increasing regularly in various parts of the World. The COVID-19 is an emerging viral infection responsible for pandemics. Fortunately, the mortality of COVID-19 is low as compared with SARS and MERS, the majority of its cases are recovered. The death toll of COVID-19 is high even after its low mortality because COVID-19 causes a pandemic while SARS-CoV and MERS-CoV cause epidemics only. COVID-19 influenced the large segments of the world population, which led to a public health emergency of international concern, putting all health organizations on high alert. COVID-19 is the first coronavirus after Spanish Flu 1918–1919, who has extremely influenced the health system, economy, and psychology of India. The present study review is based on mygov.in based and aim of this paper is when COVID-19 come in India and whole data of covid-19 active cases, Cured cases and Migrate case and deaths are present in India till date, this paper is shown compilation all data in one sheet. Which is helpful for future research and data based entry of covid-19 in India.

Keywords: COVID-19, database, India

Date of Submission: 10-09-2020

Date of Acceptance: 24-09-2020

I. Introduction

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in December 2019 in Wuhan, Hubei, China, and has resulted in an ongoing pandemic. As of 15 September 2020, more than 29.1 million cases have been reported across 188 countries and territories with more than 927,000 deaths; more than 19.7 million people have recovered. [1].

Common symptoms include fever, cough, fatigue, shortness of breath or breathing difficulties, and loss of smell and taste. While most people have mild symptoms, some people develop acute respiratory distress syndrome (ARDS) possibly precipitated by cytokine storm, multi-organ failure, septic shock, and blood clots. The incubation period may range from two to fourteen days [1].

The first case of COVID-19 was reported in India on 30 January 2020 in Thrissur, Kerala. This was the index case in India who tested positive after coming for a vacation. This individual was a student of the University of Wuhan. Subsequent cases were reported in Kerala. Subsequently, the number of cases in India increased to 519 as on 24March 2020 with mortality in 7 patients as on 22March2020and10patients on 24March 2020 [2].

While the spread in China was rapid, it took substantial time for the disease to spread into the nation, transmitted predominantly by international travelers. The pandemic has hit many nations hard particularly Italy and Spain worst hit in Europe, with Iran and the United States of America affected badly among other nations [3].

The Covid-19 is very similar in symptomatology to other viral respiratory infections. Cases vary from mild forms to severe ones that can lead to serious medical conditions or even death. It is believed that symptoms may appear in 2 to 14 days, as the incubation period for the novel coronavirus has not yet been confirmed. [3] As it is novel virus specific modes of transmission is not known. [3] Originally emerged as animal source but now spreading from person to person. There has been speculation about the virus spreading while the carrier (infected person) is not showing any symptoms, but that has not been confirmed as a scientific fact. [3] Currently symptoms reported are cough, acute onset of fever and difficulty in breathing. Out of all the cases that have been confirmed, up to 20% have been deemed to be severe. [3] Complications that may arise as a result of being infected are pneumonia, sepsis, septic shock and ARDS (acute respiratory distress syndrome). [3] Suspicion should arise with the above mentioned symptoms and recent travel history to countries being affected by Covid19 or now more crudely travel to any foreign country.

Current Scenario in India

Continuing the streak of posting more than 60,000 recoveries each day since the past five days, India has registered **65,081** recoveries in the last 24 hours. The cumulative number of recovered patients have grown to **28, 39,882**, taking the Recovery Rate among COVID-19 patients to further high of **77%**. The number of recovered patients has overtaken the active cases by **3.61** times. India has more than **20.53 lakh** recovered people than the active cases that stand at **7,85,996** today. The number of recovered patients has grown 4 times from the first week of July to the last week of August 2020.

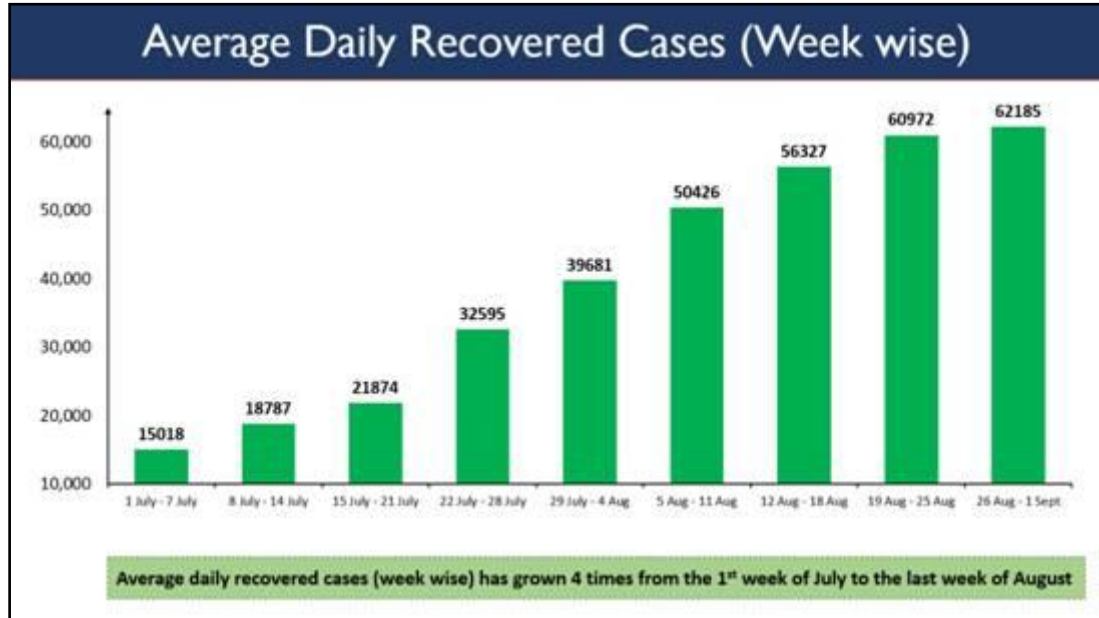


Figure-1 : Average Daily Recovered Covid-19 Cases (Week wise) in India

In the last 24 hours, five States have posted the highest addition to the new cases in the country. These are Maharashtra (11,852), Andhra Pradesh (10,004), Karnataka (6,495), Tamil Nadu (5,956) and Uttar Pradesh (4,782). Together they account for 56% of the confirmed cases added in the last 24 hours. These five states have also reported the maximum number of patients that were cured and discharged in the last 24 hours, cumulatively accounting for 58.04% of the national figure of 65,081 persons. While Maharashtra reported recoveries of 11,158 patients, the corresponding figures for Andhra Pradesh and Karnataka stand at 8,772 and 7,238. Tamil Nadu follows with 6,008, while Uttar Pradesh posted recovery of 4,597 COVID patients.

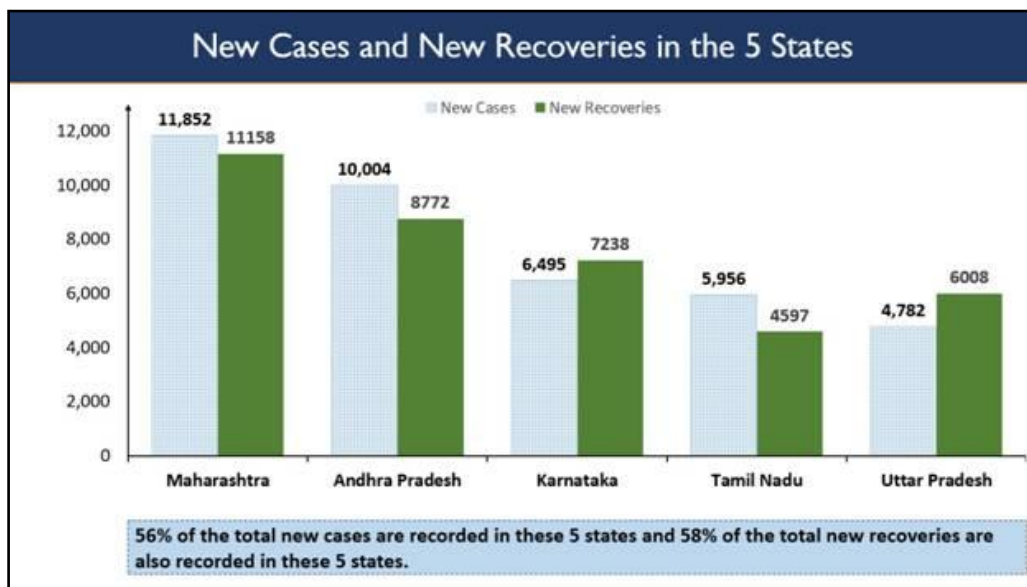


Figure-2 : New cases and New Recoveries in the 5 States

With a cumulative figure of 536 deaths in the last 24 hours, the above mentioned five states together account for 65.4% of the deaths added to the national total (819). Maharashtra has reported 184 deaths, Karnataka has added 113, followed by Tamil Nadu (91), Andhra Pradesh (85) and Uttar Pradesh (63) [4]. Table 1 shows month wise covid-19 cases in India [5].

Bengaluru going by the current national trend, a worst case scenario projection made by a team at the Indian Institute of Sciences (IISc) estimates that India would have a few more than 35 lakh cases by September 1, while Karnataka will have 2.1 lakh. Of these, 10 lakh and 71,300 will be active cases, respectively. In a Senario that is better than the current trend, India is expected to hit a peak of 4.78 lakh active cases in the second week of september, while there will be around 1.4 lakh active cases, 1.88 lakh deaths and 37.4 lakh total cases at the end of March 2021 [6].

Comparatively, worst case scenario projection shown that Maharashtra will have 6.3 lakh total cases and 2.1 lakh active cases, it would be 2.4 lakh and 81,000 in Delhi, 1.6 lakh and 53,000 in Tamil Nadu, and 1.8 lakh and 61,000 in Gujarat [6].

Table-1 Monthly State Wise Covid-19 patients data (Confirmed Cases /Active Cases Cured & Discharged / Death) in India Source <https://prsindia.org/covid-19/cases> [5]

Year 2020										
Confirmed Cases(C)/ Active Cases (A) / Cases Cured & Discharged Cases (Cu) / Death (D)										
Sr . N o.	State	Janu ary C/A/ Cu/ D	Feb C/A /Cu /D	March C/A/C u/D	April C/A/Cu/ D	May C/A/Cu/D	June C/A/Cu/D	July C/A/Cu/D	August C/A/Cu/D	September C/A/Cu/D *Till 12/Sep/20
1	Andhra Pradesh	0/0/0 /0	0/0/ 0/0	40/ 39/1/0	1332/ 1014/287/ 31	3569/ 1220/2289/6 0	13891/ 7479/6232/1 80	130557/ 69252/60024/1 281	424767/ 99129/321754/ 3884	547686/ 96191/446 716/4779
2	Arunachal Pradesh	0/0/0 /0	0/0/ 0/0	0/0/0/0	1/ 0/1/0	4/ 3/1/0	187/ 125/61/1	1484/ 654/827/3	4034/ 1205/2822/7	5825/ 1689/4126/ 10
3	Assam	0/0/0 /0	0/0/ 0/0	0/0/0/0	38/ 8/29/1	1185/ 1018/163/4	7752/ 2408/5333/1 1	38407/ 9233/29080/94	105774/ 21551/83927/2 96	138339/ 29580/108 329/430
4	Bihar	0/0/0 /0	0/0/ 0/0	15/ 14/0/1	392/ 325/65/2	3636/ 1998/1618/2 0	9640/ 2188/7390/6 2	48477/ 16845/31350/2 82	135035/ 17333/117124/ 578	155445/ 15190/139 458/797
5	Chhattisgarh	0/0/0 /0	0/0/ 0/0	8/ 8/0/0	38/ 4/34/0	447/ 344/102/1	2761/ 575/2173/13	8761/ 2789/5921/51	30092/ 13520/16303/2 69	58643/ 31001/271 23/519
6	Goa	0/0/0 /0	0/0/ 0/0	5/ 5/0/0	7/ 0/7/0	70/ 29/41/0	1198/ 717/478/3	5704/ 1657/4005/42	17004/ 3635/13186/18 3	23445/ 5104/1806 5/276
7	Gujarat	0/0/0 /0	0/0/ 0/0	73/ 64/3/6	4082/ 3358/527/ 197	16343/ 6106/9230/1 007	31938/ 6871/23240/ 1827	60285/ 13793/44074/2 418	95009/ 15272/76731/3 006	110809/ 16286/913 43/3180
8	Haryana	0/0/0 /0	0/0/ 0/0	40/ 19/21/ 0	310/ 98/209/3	1923/ 932/971/20	14210/ 4476/9502/2 32	34254/ 6497/27340/41 7	63282/ 10980/51620/6 82	88332/ 18875/685 25/932
9	Himachal Pradesh	0/0/0 /0	0/0/ 0/0	3/ 2/0/1	40/ 14/25/1	313/ 197/111/5	942/ 377/556/9	2506/ 1105/1387/14	5945/ 1460/4450/35	8784/ 2874/5839/ 71
10	Jharkhand	0/0/0 /0	0/0/ 0/0	0/0/0/0	107/ 85/19/3	563/ 302/256/5	2426/ 566/1845/15	10167/ 5888/4176/103	38435/ 11577/26448/4 10	59040/ 15180/433 28/532
11	Karnataka	0/0/0 /0	0/0/ 0/0	83/ 75/5/3	535/ 298/216/2 1	2922/ 1877/997/48	14295/ 6386/7683/2 26	118632/ 69708/46694/2 230	335928/ 88110/242229/ 5589	440411/ 98345/334 999/7067
12	Kerala	0/0/0 /0	0/0/ 0/0	234/ 214/19	495/ 122/369/4	1208/ 624/575/9	4189/ 2015/2152/2	22303/ 10074/12159/7	73855/ 23719/49849/2	102254/ 27944/739

Coronavirus (COVID-19) in India: Present Situation

				/1			2	0	87	00/410
13	Madhya Pradesh	0/0/0 /0	0/0/0 /0/0	47/ 44/0/3	2561/ 1971/461/ 129	7891/ 3104/4444/3 43	13370/ 2607/10199/ 564	30968/ 8454/21657/85 7	62433/ 13592/47467/1 374	83619/ 18992/629 36/1691
14	Maharashtra	0/0/0 /0	0/0/0 /0/0	216/ 168/39 /9	9915/ 7890/159 3/432	65168/ 34890/2808 1/2197	169883/ 73313/8896 0/7610	411798/ 148454/24861 5/14729	780689/ 193889/56240 1/24399	1015681/ 271934/71 5023/2872 4
15	Manipur	0/0/0 /0	0/0/0 /0/0	1/ 1/0/0	2/ 0/2/0	62/ 54/8/0	1227/ 733/494/0	2505/ 829/1672/4	6112/ 1845/4239/28	7579/ 1533/6002/ 44
16	Meghalaya	0/0/0 /0	0/0/0 /0/0	0/0/0/0	12/ 11/0/1	27/ 14/12/1	47/ 4/42/1	803/ 588/210/5	2343/ 1284/1049/10	3447/ 1534/1889/ 24
17	Mizoram	0/0/0 /0	0/0/0 /0/0	1/ 1/0/0	1/ 1/0/0	1/ 0/1/0	148/ 93/55/0	408/ 174/234/0	1011/ 422/589/0	1379/ 589/790/0
18	Nagaland	0/0/0 /0	0/0/0 /0/0	0/0/0/0	1/ 1/0/0	36/ 36/0/0	434/ 266/168/0	1566/ 936/625/5	3922/ 887/3026/9	4946/ 1134/3802/ 10
19	Odisha	0/0/0 /0	0/0/0 /0/0	3/ 3/0/0	125/ 85/39/1	1819/ 762/1050/7	6859/ 1890/4946/2 3	30378/ 10463/19746/1 69	100934/ 27219/73233/4 82	143117/ 30450/112 062/605
20	Punjab	0/0/0 /0	0/0/0 /0/0	41/ 37/1/3	357/ 248/90/19	2233/ 222/1967/44	5418/ 1516/3764/1 38	15456/ 4577/10509/37 0	52526/ 15375/35747/1 404	74616/ 19096/533 08/2212
21	Rajasthan	0/0/0 /0	0/0/0 /0/0	74/ 71/3/0	2438/ 1619/768/ 51	8617/ 2685/5739/1 93	17660/ 3637/13618/ 405	40145/ 11097/28385/6 63	80227/ 14091/65093/1 043	99036/ 15859/819 70/1207
22	Sikkim	0/0/0 /0	0/0/0 /0/0	0/0/0/0	0/0/0/0	1/ 1/0/0	88/ 38/50/0	610/ 395/214/1	1627/ 404/1220/3	2026/ 532/1486/8
23	Tamil Nadu	0/0/0 /0	0/0/0 /0/0	74/ 69/4/1	2162/ 925/1210/ 27	21184/ 9024/12000/ 160	86224/ 37334/4774 9/1141	239978/ 57962/178178/ 3838	422085/ 52721/362133/ 7231	491571/ 47918/435 422/8231
24	Telangana	0/0/0 /0	0/0/0 /0/0	79/ 77/1/1	1012/ 619/367/2 6	2499/ 1010/1412/7 7	15394/ 9559/5582/2 53	60717/ 15640/44572/5 05	124963/ 31299/92837/8 27	154880/ 32005/121 925/950
25	Tripura	0/0/0 /0	0/0/0 /0/0	0/0/0/0	2/ 0/2/0	268/ 96/172/0	1380/ 294/1085/1	4706/ 1723/2962/21	11644/ 4108/7433/103	18281/ 7365/1073 4/182
26	Uttar Pradesh	0/0/0 /0	0/0/0 /0/0	101/ 87/14/ 0	2134/ 1585/510/ 39	7445/ 2834/4410/2 01	22828/ 6650/15506/ 672	81039/ 32649/46803/1 587	225632/ 54666/167543/ 3423	299045/ 67321/227 442/4282
27	Uttarakhand	0/0/0 /0	0/0/0 /0/0	7/ 5/2/0	55/ 19/36/0	749/ 642/102/5	2831/ 681/2111/39	7065/ 2993/3996/76	19235/ 5912/13066/25 7	29221/ 9405/1942 8/388
28	West Bengal	0/0/0 /0	0/0/0 /0/0	26/ 24/0/2	758/ 612/124/2 2	5130/ 2851/1970/3 09	17907/ 5535/11719/ 653	67692/ 19900/46256/1 536	159785/ 25657/130952/ 3176	196332/ 23461/169 043/3828
	Total	0	0	1397	33050	182143	566840	1638870	3621245	4659984
	Discharged People	0	0	124	8325	86984	334822	1057805	2774801	3624196

Union territories

Sr. No.	Union territory	January	February	March	April	May	June	July	August	September
1	Andaman and Nicobar Islands	0/0/0/0	0/0/0/0	10/10/0/0	33/18/15/0	33/0/33/0	90/44/46/0	471/266/201/4	3104/473/2586/45	12/9/2020
2	Chandigarh	0/0/0/0	0/0/0/0	13/13/0/0	56/39/17/0	289/96/189/4	435/80/349/6	1016/355/647/14	4155/1807/2296/52	12/9/2020
3	Dadra and Nagar Haveli and Daman and Diu	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	2/2/0/0	203/126/77/0	1064/394/668/2	2340/296/2042/2	12/9/2020
4	Delhi	0/0/0/0	0/0/0/0	97/89/6/2	3439/2291/1092/56	18549/10058/8075/416	85161/26246/56235/2680	134403/10743/119724/3936	209748/26907/178154/4687	12/9/2020
5	Jammu and Kashmir	0/0/0/0	0/0/0/0	54/50/2/2	581/381/192/8	2341/1405/908/28	7237/2557/4585/95	19869/7662/11842/365	37163/7959/28510/694	50712/15169/34689/854
6	Ladakh	0/0/0/0		13/10/3/0	22/6/16/0	74/31/43/0	964/347/616/1	1378/277/1094/7	2638/847/1757/34	3228/803/2387/38
7	Lakshadweep	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0
8	Puducherry	0/0/0/0	0/0/0/0	1/1/0/0	8/5/3/0	51/37/14/0	619/388/221/10	3298/1292/1958/48	14127/4938/8968/221	19026/4878/13783/365

Note: * C/A/Cu/D: Confirmed Cases /Active Cases Cured & Discharged / Death

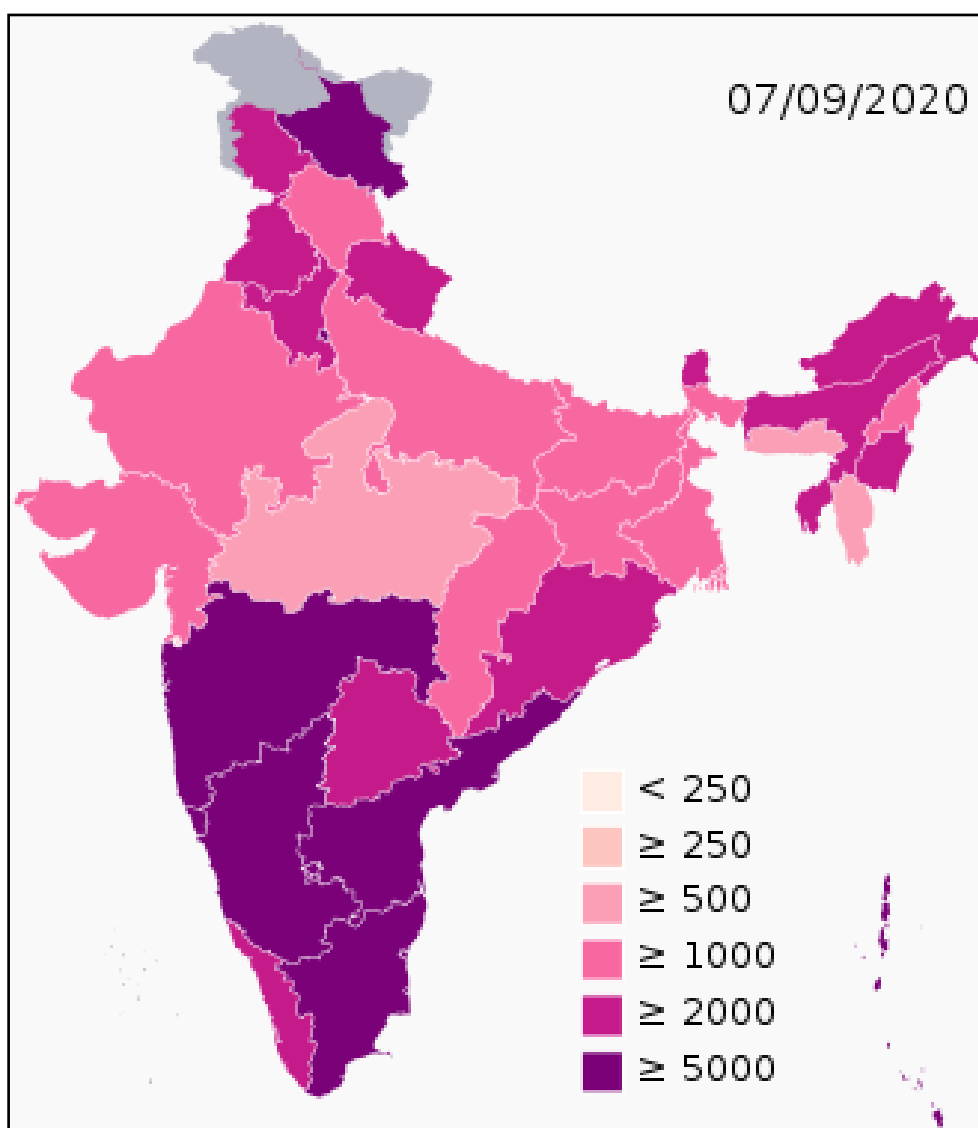


Fig-3 shows present situation of COVID-19 Pandemic in India [7]

By November 1, India is predicted to have 1.2 crore cases (including 30.2 lakh active) and 5 lakh deaths and by January 1, these numbers would be 2.9 crore (60 lakh) and 10 Lakh. Karnataka is estimated to have 7.2 lakh cases by November 1 with 1.9 lakh active cases and 30,400 deaths, and by January 1 these numbers will be 10.8 lakh (3.7 lakh) and 78,900 [6].

As per a worse scenario projection, no peak is predicted for India until end March 2021, at which time there will be around 82 lakh active cases and still growing, 28 lakh deaths and 6.18 crore total cases. A Similar analysis is done for various states. The State wise results are computed with the parameters of national trend to compare the performance of the respective state with the national trend. Multiple epidemiologists TOI spoke with suggested that projections for states should have been based on current trends in states as the virus peaks at different times in different regions.

Science this is an active situation with regular ongoing interventions and policy changes from state and Central Governments, we do not predict each state individually, the state numbers are computed with national parameters so as to compare the actual data of the state with the national trend.

Further, their modelling provides projection of current trend which shows that India would hit a peak peak of 9.7 lakh active cases in the last week of October. There will be around 2.1 lakh active cases, 4.5 lakh deaths and 91 lakh total cases at the end of March 2021 [6].

The proposed Model is paradigm shift in mathematical modeling of infectious diseases. These modeling framework introduces a multidimensional equation to predict the spread of pandemics with insights into severity of infection, duration of infection, population age etc [6].

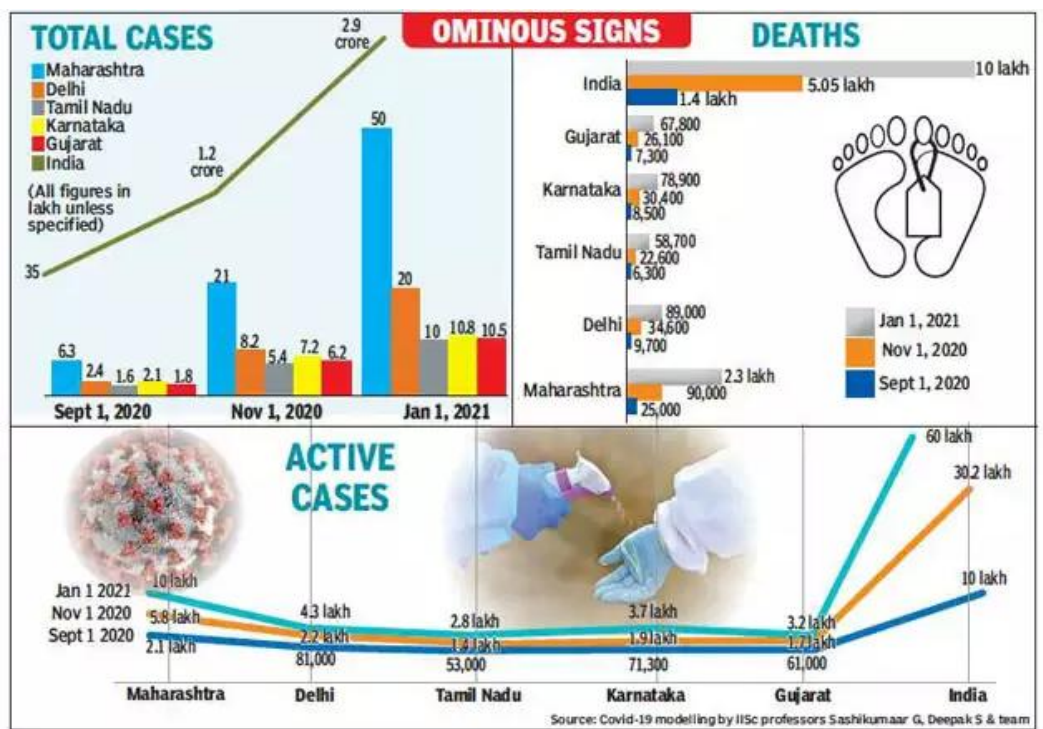


Figure-4 shows Total cases, death cases and active cases present in India

The projections done by Prof Sashi Kumar G, Prof Deepak S and their team estimate that by September 1, India would have recorded 1.4 lakh deaths, of which 25,000 will be from Maharashtra, 9,700 from Delhi, 8,500 from Karnataka, 6,300 from Tamil Nadu and 7,300 from Gujarat [7].

II. Conclusion

COVID-19, a new and sometimes deadly respiratory illness that is believed to have originated in a live animal market in China, has spread rapidly throughout that country and the world. COVID-19 is a highly contagious disease caused by SARS-CoV-2. The disease may vary from asymptomatic cases, mild symptoms to life-threatening complications such as ARDS, multiorgan failure, sepsis, and death. In particular, elderly with comorbid conditions are at higher risk. COVID-19 is a pandemic, hence drug repositioning that is “old pills for new indications” is being tried worldwide. Globally, hundreds of clinical trials are ongoing to evaluate the efficacy of these old drugs in SARS-CoV-2 infection. The WHO has also planned a large global trial known as “Solidarity Trial” mainly to generate a robust clinical evidence to combat this pandemic. As there is no specific

treatment till date, prevention is the only measure to contain the infection. Even a small negligence in following the preventive measures would be very expensive for the mankind. The ICMR has given some recommendations regarding COVID-19 prevention and treatment. However, these recommendations are based on the present current evidence and may change once robust clinical data is generated. The famous quote says “United we stand and divided we fall.” Therefore, it is the duty of every citizen of India to abide by the rules and regulations led by our government, let's come together and fight against this pandemic.

As, COVID-19 can also be a part of NC infection for hospitals, it is necessary to be aware of the disease and take necessary actions to prevent it from infecting anyone due to lack of awareness.

In current scenario everyone is at risk irrespective of age or the locality. At hospital as staff and patients are coming in contact with covid19 known and unknown cases, it has become our noble responsibility to spread awareness related to all infections which can be Nosocomial infection as well.

Reference:

- [1]. https://en.wikipedia.org/wiki/Coronavirus_disease_2019
- [2]. https://en.wikipedia.org/wiki/COVID-19_pandemic_in_India
- [3]. Bradley M. The Essential Guide to The Wuhan Virus (Symptoms, Transmission and Prevention). Corona Virus; 2020.
- [4]. <https://pib.gov.in/PressReleasePage.aspx?PRID=1650296>
- [5]. <https://prsindia.org/covid-19/cases>
- [6]. <https://timesofindia.indiatimes.com/city/bengaluru/worst-case-scenario-india-to-have-351-cases-by-sept-1/articleshow/76987434.cm>
- [7]. https://en.wikipedia.org/wiki/COVID-19_pandemic_in_India
- [8]. <https://www.deccanherald.com/national/coronavirus-india-update-state-wise-total-number-of-confirmed-cases-deaths-as-of-march-25-812987.html>

Dr. Varsha Nigam Gour, et. al. "Coronavirus (COVID-19) in India: Present Situation." *IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS)*, 15(5), (2020): pp. 45-51.