

# COVID 19: Mega Cities: Weekly Round-up

**25 October 2020**

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

**Mission:** Actively contribute towards **Right to Health** as constitutional right of Indian citizen

Project: Jeevan Raksha has been in the forefront of providing sharper analytical insights on emerging pattern of COVID 19 in India to the Central / State Government administrations 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.

# Content

- Drivers for drop in COVID cases in Mega Cities
- 1.5% of total population in 6 Mega Cities are tested positive for COVID 19. Key influencing factors
- Active Cases Trends in Mega Cities
- Mortality Pattern in Mega Cities

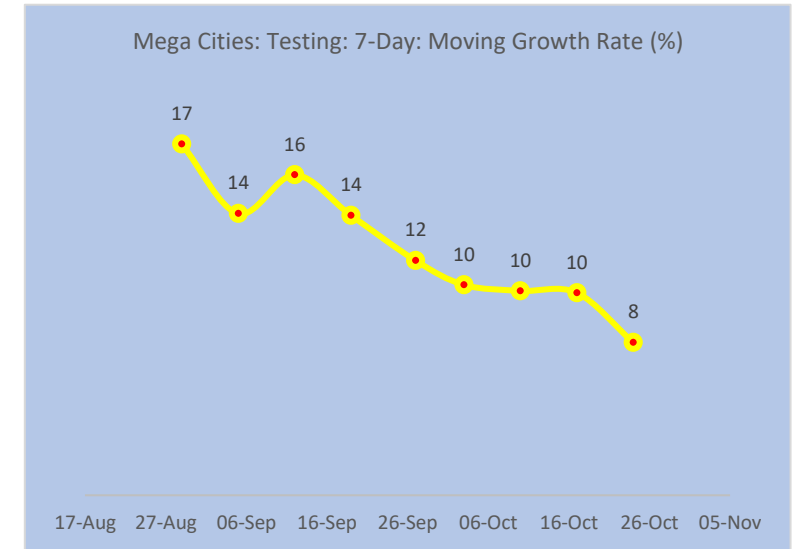
# Slower and Lower Testing will lead to wide spread of virus in the region & increase mortality

## In Pandemic:

- Positivity is DIRECTLY PROPORTIONAL to the Testing. Increase in quality Testing will lead to increase in Positive cases, vice-versa

- Reduction in Moving Growth Rate (MGR) of Testing will lead to increase in spread of virus in the region

- There is a drop in Week-on-Week growth rate of testing in all the 5 Mega cities\* (Amdavad, Bengaluru, Chennai, Delhi, and Mumbai).
- 5 Mega cities had cumulatively carried out 40.8 lacs tests as on 22 August. In the subsequent week (29<sup>th</sup> Aug), the total number of tests conducted by these 5 mega cities was 47.8 lacs, increase of 17%
- As on 17<sup>th</sup> October number of tests conducted by these 5 mega cities was 1.07 Crores. In the subsequent week (24<sup>th</sup> Oct), the total number of tests conducted by these 5 mega cities was 1.15 Crores, increase of only 8%



**Moving Growth Rate (MGR) is the percentage expression of growth of the value during the period as % of value at the beginning of the period**

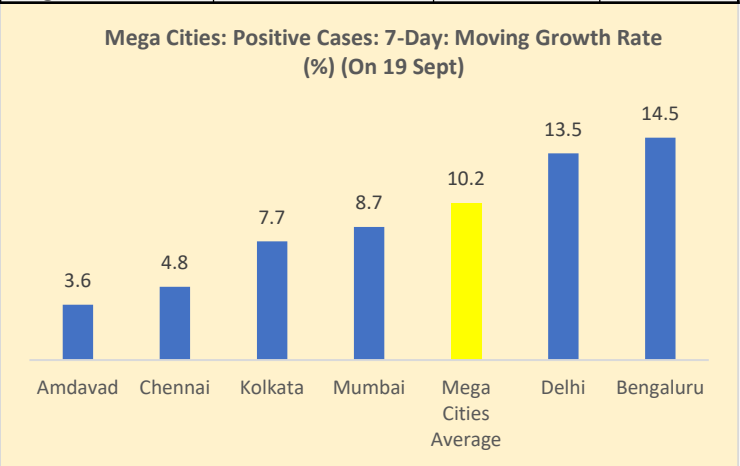
**\* Kolkata is not included as testing data is not available in the public domain**

# India need to increase Week-on-Week Moving Growth Rate of Testing to reduce mortality



Mega Cities: Testing Pattern and 7-Day-MGR			
Mega Cities	12-Sep	19-Sep	7-Day MGR
Chennai	1120000	1200000	7
Mumbai	920000	1000000	9
Amdavad	1000000	1120000	12
Bengaluru	1190000	1370000	15
Delhi	2080000	2490000	20
<b>Mega Cities Total</b>	<b>6310000</b>	<b>7180000</b>	<b>14</b>

Mega Cities: Incremental Increase in Positive Cases			
Mega Cities	12-Sep	19-Sep	Increase
Amdavad	33553	34759	1206
Kolkata	46047	49613	3566
Chennai	147591	154624	7033
Mumbai	167656	182203	14547
Bengaluru	167183	191438	24255
Delhi	214069	242899	28830
<b>Mega Cities Total</b>	<b>776099</b>	<b>855536</b>	<b>79437</b>



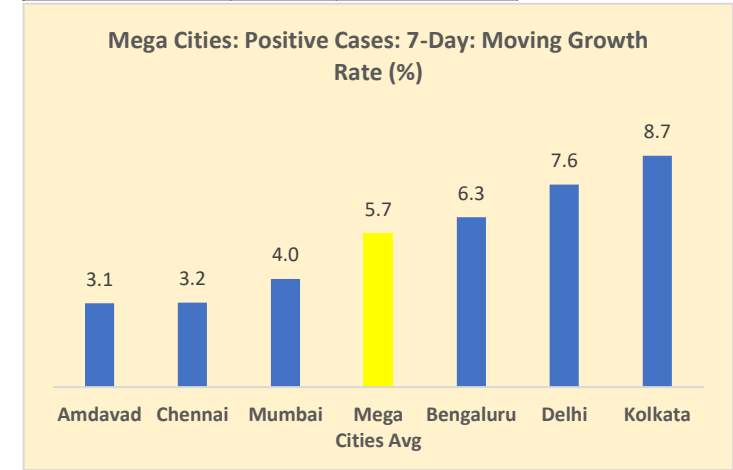
Week-on-Week, gradual decrease in rate of testing is one of the key factor for decrease in average daily cases in Mega Cities

**Case Study**

- Between 12 – 19 September, Bengaluru and Delhi increased the testing by 15% and 20% respectively. During the same week, number of COVID cases in Delhi and Bengaluru increased by 13.5% and 14.5%
- Between 17 – 24 October, Bengaluru and Delhi reduced the rate of increase of testing to 8% and 10% respectively. The positive cases during the same period marginally increased by 7.6% and 6.3%

Mega Cities: Testing Pattern and 7-Day-MGR			
Mega Cities	17-Oct	24-Oct	7-Day MGR
Mumbai	1350000	1420000	5
Chennai	1560000	1650000	6
Amdavad	1470000	1560000	6
Bengaluru	2380000	2560000	8
Delhi	3940000	4315000	10
<b>Mega Cities Total</b>	<b>10700000</b>	<b>11505000</b>	<b>8</b>

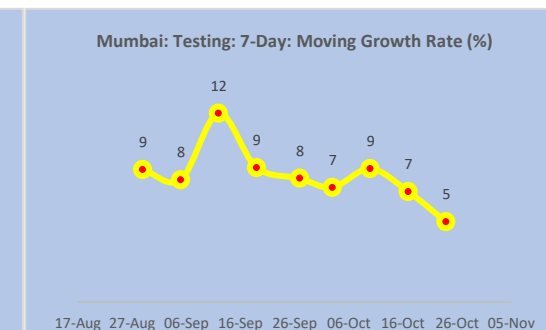
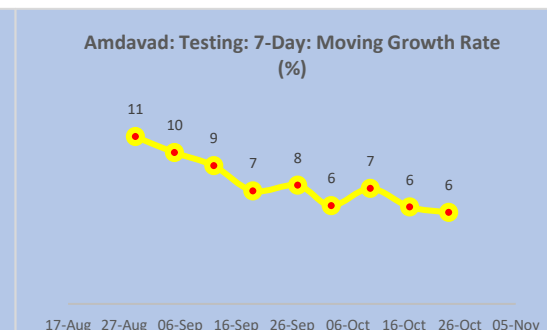
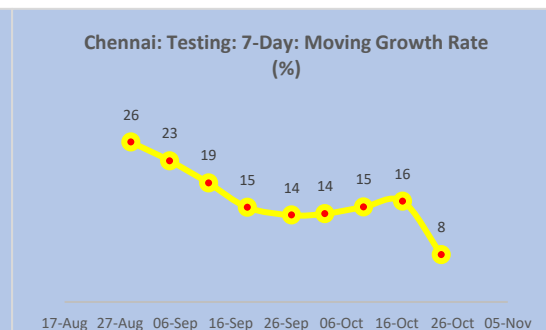
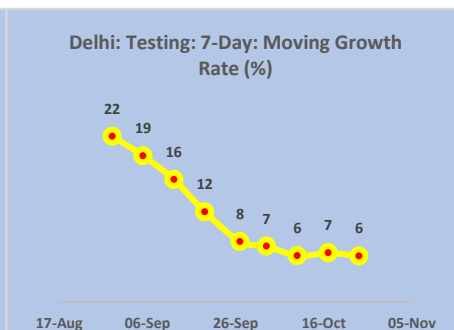
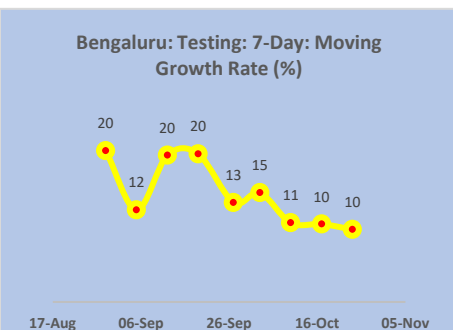
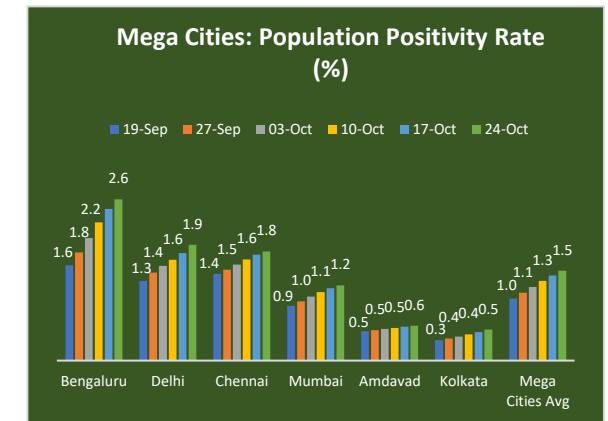
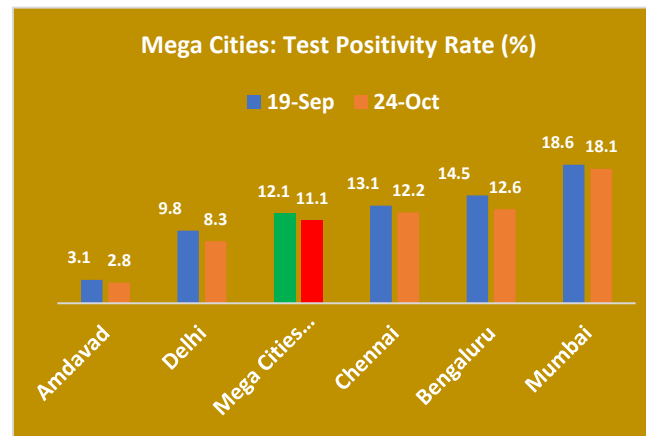
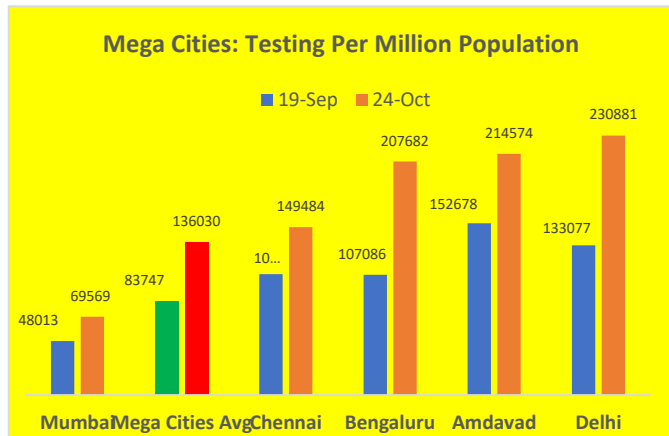
Mega Cities: Incremental Increase in Positive Cases			
Mega Cities	17-Oct	24-Oct	Increase
Amdavad	40027	41281	1254
Chennai	188944	194901	5957
Kolkata	69031	75006	5975
Mumbai	240335	250059	9724
Bengaluru	304005	323305	19300
Delhi	327718	352520	24802
<b>Mega Cities Total</b>	<b>1170060</b>	<b>1237072</b>	<b>67012</b>



# 1.5% of Total population (8.45 Crores) in 6 Mega Cities are Tested Positive due to SLOWER and LOWER Testing



- Inspite of increase in average Testing Per Million Population (TPM) in Mega cities from 83K on 19<sup>th</sup> September to 136K on 24<sup>th</sup> October, %ge of population tested positive (PPR) has increased from 1% to 1.5%. This indicates that the number of testing is **inadequate** and also **not fast enough** to block the spread of virus in the respective city.
- All cities has shown reduction in Test Positivity Rate (TPR). It's a good sign. Sustaining the trend in the coming week is crucial
- Mumbai TPM is almost half of average TPM of mega cities even though having highest TPR. Mumbaikars are relatively exposed to higher risk due to more number of infected people roaming and spreading the virus in the city without the knowledge of being infected.



# Mega Cities: Higher Recovery leads to 10% drop in number of active cases



Mega Cities Active Cases	
23-Aug	86402
29-Aug	93404
05-Sep	103742
12-Sep	117196
19-Sep	122300
26-Sep	121341
03-Oct	129739
10-Oct	135905
17-Oct	134060
24-Oct	121488

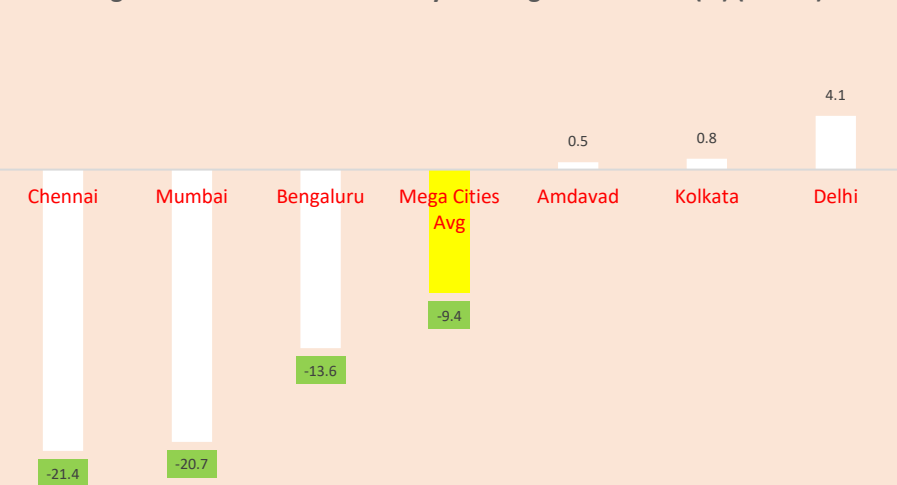
Bengaluru has 46% of the total active cases (120K) of Mega cities.

Testing / Mn Population has been increased from 111K to 207K within 4 Weeks. This has contributed to early detection of infected patients when the spread was in the mild / very mild category and enabling them recover fast.

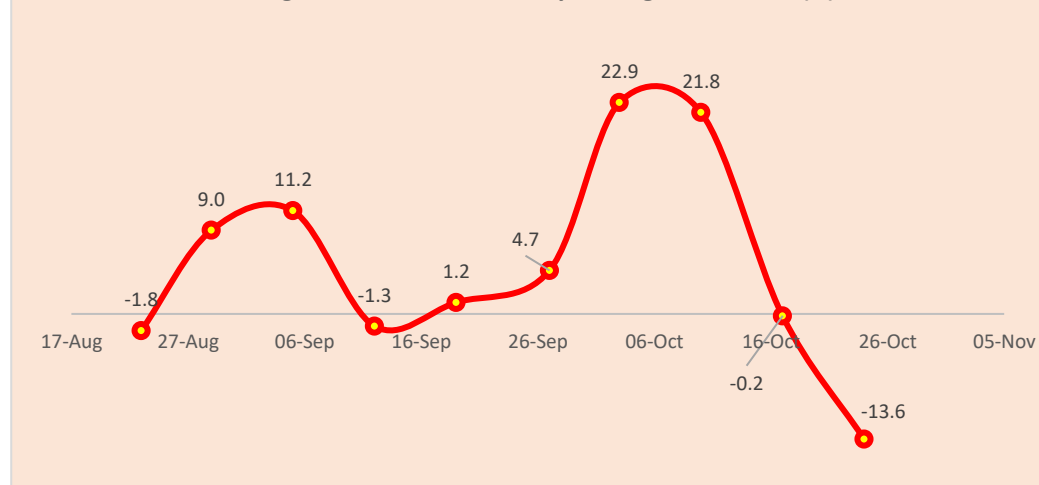
Last two weeks, Bengaluru has witnessed consistent negative growth of active cases.

Bengaluru Active Cases	
23-Aug	34224
29-Aug	37315
05-Sep	41479
12-Sep	40929
19-Sep	41434
26-Sep	43378
03-Oct	53292
10-Oct	64911
17-Oct	64770
24-Oct	55983

Mega Cities: Active Cases: 7-Day: Moving Growth Rate (%) (24 Oct)



Bengaluru: Active Cases: 7-Day Moving Growth Rate (%)



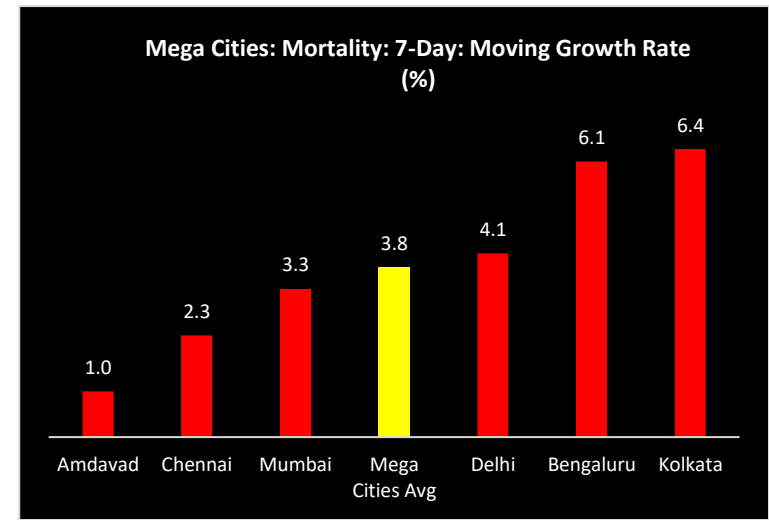
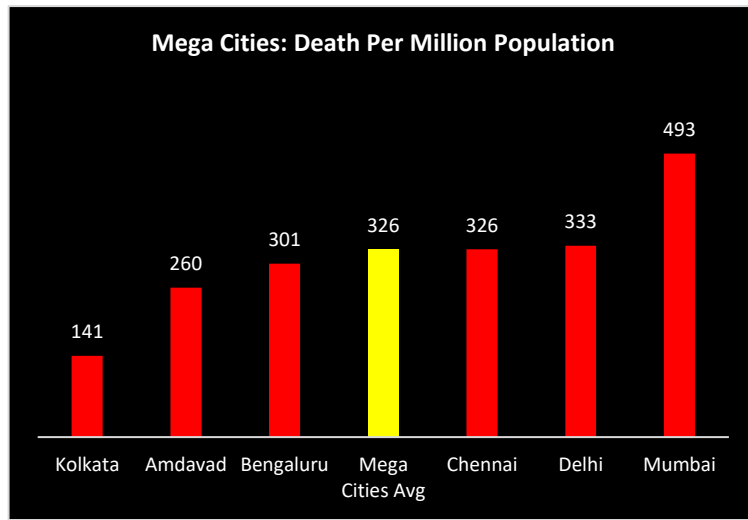
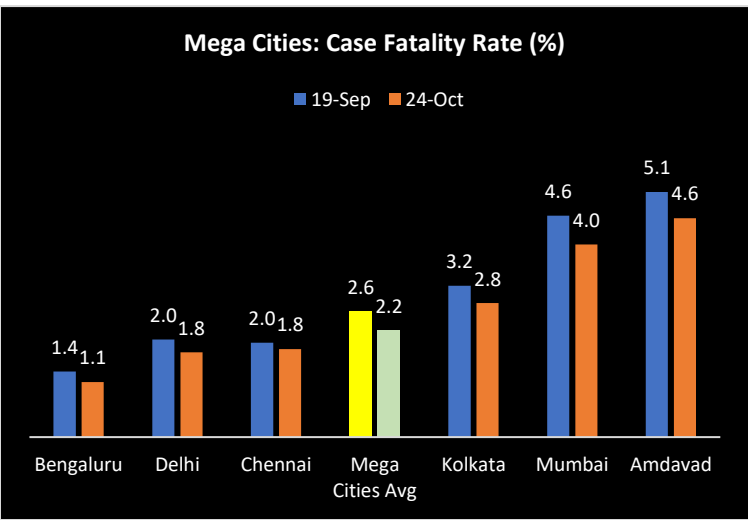


# Mega Cities: Mortality Trend



- Mega Cities average CFR drops from 2.6% to 2.2%
- Bengaluru even though having least CFR amongst the mega cities, is the 4<sup>th</sup> mega to cross DPM of over 300. More than 3 times of India's DPM of 86
- 78% of the total deaths (1002) in Mega cities during the week has occurred in Bengaluru, Delhi, and Mumbai.
- Between 1<sup>st</sup> August to 24 October, 11602 deaths have occurred in the 6 mega cities. Fortunately in Amdavad only 286, 2% of the total deaths has occurred due to COVID 19.

Mega Cities: Mortality Growth Pattern during the week			
Mega Cities	17-Oct	24-Oct	Incremental Increase
Amdavad	1868	1887	19
Chennai	3501	3580	79
Kolkata	1971	2097	126
Bengaluru	3500	3714	214
Delhi	5981	6225	244
Mumbai	9739	10059	320
<b>Mega Cities Total</b>	<b>26560</b>	<b>27562</b>	<b>1002</b>



## 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](http://www.google.com); [www.wikipedia.org](http://www.wikipedia.org);  
<https://www.worldometers.info/coronavirus/#countries>
2. Updated testing data of 4 mega cities (Ahmedabad, Bengaluru, Chennai, Delhi, and Mumbai) are available in the public domain. Whereas, updated testing data of Kolkata and Hyderabad is not to be found by our researchers. The analysis of average testing data has limitation with respect to data of 5 mega cities. Therefore, readers of this report need to factor the same for further inferences.
3. Information related to current status of Telangana and its districts are not available in the public domain. Therefore, readers of this report need to factor the same for further inferences.
4. The user of this presentation is advised to revalidate the shared data from authorised public institutions.

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**Thank you**